THE PLEASURES OF PUZZLE-SOLVING IN ADVENTURE GAMES

Close reading Day of the Tentacle

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Adventure games emerged as a new form of digital games in the late 1970s, via the release of the first adventure game, *Adventure*. Originally text-only in representation, and using the parser to guide the player character, adventure games soon adapted graphics and a point-and-click user interface, features that made them more accessible and greatly successful in the 1990s. Before the end of the 20th century, however, adventure games lost their position in the market, becoming a niche genre of digital games. One reason behind people losing interest in adventure games is agreed as the abundance of designer puzzles, where the connection between the puzzles of adventure games and their solutions is left unclear to the player. This problem emerged from the initial success of adventure games, which led to a multiplicity of adventure games of varying quality.

The purpose of this thesis is to study the puzzles of adventure games. Starting with the presumption that puzzles are at the core of adventure games, studying them can provide insight on adventure games as a whole. The research goal of this study is to find out ways in which adventure game puzzles are pleasurable for the player to solve. I approach this goal by analyzing the puzzles of a point-and-click adventure game *Day of the Tentacle*, using a close reading method. To aid in my close reading, I am going to form an analytical lens out of the theory about the nature of insight thinking, in order to highlight the pleasurable moments of puzzle-solving in *Day of the Tentacle*.

As a result of my close reading, I present three ways in which adventure game puzzles provide pleasure to the player: 1) puzzles are pleasurable works of art in themselves, 2) solving a puzzle through insight thinking, and 3) progression made in the story of the game by solving puzzles. These three ways emerge from the existing research, and I propose that they are also present in *Day of the Tentacle*. I suggest that these results can be used as a basis for a criteria to aid in evaluating and designing adventure game puzzles.

Keywords: adventure games, puzzles, game analysis, close reading, insight thinking, puzzle instinct, intellectual pleasure, Day of the Tentacle

Table of Contents

1. INTRODUCTION

My interest towards the workings of adventure games is deeply rooted in my childhood. I remember my adventures with the incompetent pirate Guybrush Threepwood in *The Secret of Monkey Island*, waltzing around Mêlée Island™ getting into sword fights with other pirates to trade insults I did not quite understand as a ten-year-old. Through trial and error, finding out that the troll guarding the bridge would let me pass if I gave them a red fish to eat, revealing that the troll was not actually a troll, but a person in a troll costume, made me laugh. Back then, I could spend days figuring out possible solutions to the challenges of *The Secret of Monkey Island*, only to reach the next challenge, which usually felt like another dead end. Still, I enjoyed the struggle. Today, I have grown impatient. There are few games I play from start to finish, and very few that I think about outside the time I spend playing them. I tend not to like it when games present me problems that feel like too challenging to solve right away. This is one reason why today, instead of playing games myself, I prefer to watch other people play them.

Observing other people play point-and-click adventure games like *The Secret of Monkey Island* got me even more interested in the genre. Seeing their eyes light up and their arms reaching up in the air as a sign of triumph after coming up with the correct solution to a difficult puzzle, when just moments before they were frustrated because the game did not seem to make any sense at all, got me thinking about how those challenges are built into these games, and if there exists a right way and a wrong way to do this.

With this line of thinking as a basis I started the work on this master's thesis. Searching for research literature on adventure games, I quickly found out that other academics before me had been driven by similar interests. Mary Ann Buckles has studied the close relationship between play, games, and literature in her doctoral dissertation *Interactive Fiction: The Computer Storygame Adventure* already in 1985 by studying the first adventure game, *Adventure*. Espen Aarseth (1997) and Nick Montfort (2003) have highlighted the literary qualities of adventure games, Montfort seeing adventure games as a part of a continuum that started already from literary riddles. Most recently, Clara

Fernández Vara (2009) has studied how adventure games compare to other digital games, and how they combine games with stories. Aside from Buckles' dissertation, which proved difficult to obtain, these works formed the cornerstones for my research, and soon led to numerous other sources, which I will go through in greater detail further into this thesis.

I was delighted to discover that existing theories had been applied to answer the question why the main challenges in adventure games, i.e. puzzles, have the ability to both enrage the players of adventure games, when the answers to the puzzles elude them, and to reward them with feelings of triumph, pleasure, and relief, when the solution finally reveals itself. Puzzles in adventure games are a specific type of problems, where the player needs to use their wits and their knowledge about the virtual world of the game to overcome a challenge, such as the aforementioned example of finding out that the troll-person guarding the bridge is fond of red fish. Fernández Vara (2009) has shown how adventure game puzzles can make use of insight thinking, this 'thinking outside the box' ability all humans share, to be able to form novel information, in order to make sure that they provide the player the tools they need to reach the solution. In my analysis, the theory about the nature of insight thinking by Robert Sternberg (1985) works as an analytical lens of sort, through which it is possible to focus on these aspects of adventure game puzzles.

Pairing this with the idea about 'the puzzle instinct' by Marcel Danesi (2002), who argues that puzzles are pleasurable in themselves, and that they provide us with pleasure similarly as a good piece of humor does, guided me towards my research goal of finding out those components of adventure game puzzles that work towards a pleasurable experience, and what kind of a construct they end up shaping.

To start working towards this research goal I decided to study the puzzles in one adventure game. I chose a 2016 rerelease of the 1993 LucasArts classic point-and-click adventure game *Day of the Tentacle* as the subject of my study, as its recent rerelease shows that the gameplay experience it provides has stood the test of time and thus remains an example of a well-thought-out adventure game even today. I wanted to gain deep knowledge about the game, and how the puzzles in it work from both a gameplay and a storytelling perspective, providing the lows of frustration, anxiety, and boredom,

and the highs of accomplishment, triumph, and pleasure, along the way. I wanted to at least start my study by playing the game myself to get some first-hand information, so I did. Simultaneously, I stumbled upon *Well Read*, a series of books and an academic journal about using a close reading method to study digital games. Jim Bizzocchi and Joshua Tanenbaum (2011) are among the researchers who use close reading, a technique from literary studies, for deconstruction, detailed examination, and analysis of digital games. This encouraged me to keep on playing *Day of the Tentacle* myself, and to form an analysis, or a reading, as strong as possible, about the ways the puzzles in *Day of the Tentacle* are constructed and whether they provide pleasure through moments of insight or not, accompanied by the possible reasons behind it. After spending tens of hours with the game, collecting hundreds of screenshots, and writing down numerous pages of notes in my notebook, I ended up with just that, a deep understanding of the workings of *Day of the Tentacle* and its puzzles. Even though these results, as all results of a close reading, are always prone to subjectivity, they also always provide a piece of novel information to the field about both the subject work and the method itself.

After this introduction, this thesis continues with a literature review focusing on the existing research about adventure games, their puzzles and puzzles in general, and the peculiar type of pleasure that solving puzzles and solving puzzles in adventure games produces. In the literature review, I will also discuss the theory of insight thinking in detail, and finally I will present my research goal as a summary for the review.

After the literature review, I am going to discuss the selected method of close reading, and how it compares to other possible methods when studying digital games. I will highlight the special issues that need to be considered when close reading digital games, and discuss the position of the reader, myself in this particular case, as a component in a successful close reading.

In the analysis chapter focusing on my close reading, I shall first provide an overview of the subject of study, the point-and-click adventure game *Day of the Tentacle*, and describe the process of collecting the data for the analysis through repetitive game play, collecting screenshots, and taking notes. Then, I will delve deeper into the composition of some of its puzzles, walking through them as they are represented in the game, and

then providing my analysis about their nature, making use of the relevant theories as well as my gained knowledge about the game and the genre in general.

I will relate my findings to existing research in the discussion chapter, drawing connections between this single close reading of an adventure game and the study of adventure games as a whole, when applicable. I shall also reflect on my research process, and describe both my accomplishments and failures along the way, suggesting topics for future studies. Finally, in the conclusion chapter of this thesis, I will form a concise picture of this research, highlighting the starting point, the work accomplished, and the end result.

2. LITERATURE REVIEW

In this literature review I aim to form a coherent picture of existing research about adventure games and puzzles, and the peculiar kind of pleasure that solving puzzles in adventure games produces. In order to better understand this peculiar kind of pleasure and how it is produced, I will also discuss the theory about the nature of insight thinking by Robert Sternberg (1985), and how it can be used to analyze the puzzles of adventure games.

2.1. Adventure games

This chapter describes what adventure games are and how they came into being, how they distinguish from other digital games, and how they have been studied so far.

2.1.1. The emergence of adventure games

In this thesis, adventure games are understood as digital games that, for the most part, can be seen as successors of the first adventure game, *Adventure* (also known as *Colossal Cave Adventure*, *Colossal Cave*, or *ADVENT). Adventure* is a text-only computer game created by William Crowther in the years 1975 and 1976, and later expanded and re-released by Don Woods in 1977. Crowther initially wrote *Adventure* as a computer program that his children could play with, which is part of the reason why he chose to implement a user interface based on natural language input and output in the game. Being a programmer and a cave enthusiast, he modeled the virtual world of the game based on the underground network of caves he had explored. Crowther was also a keen player of the pen-and-paper fantasy role-playing game *Dungeons & Dragons*, which encouraged him to include some fantasy elements in *Adventure* as well. Woods expanded the program in many ways, adding more items to collect, additional rooms to explore, puzzles and mazes to solve, and a point system to encourage players to replay the game for the maximum score. (Lessard 2013.)

Although in retrospective, seeing *Adventure* as a predecessor of adventure games leads to seeing it as an adventure game itself, this was not the case at the time when *Adventure* was created. Being the first representative of its kind, *Adventure* emerged

from a mixture of existing traditions. Jonathan Lessard reframes *Adventure* in its historical context, analyzing it as a program, a hack, fantasy role-playing, a cave survey, and a game. By taking these different viewpoints in order to get a new look at *Adventure*, Lessard (2013) comes to a following conclusion:

> Looking back at the reviewed cultural series, it is interesting to discover that no single influence or line of practice can fully explain *Adventure*'s specific form. Being neither fully a cave simulation, nor an adaptation of *D&D*, nor a hack, nor even a game, it appears at the crossroad of many existing traditions.

This "crossroad of many existing traditions" laid the foundations for multiple game genres to come, including action adventures and massively multiplayer role-playing games, in addition to adventure games (Juul 2005, 71-72; Lessard 2013). Bob Rehak (2003) similarly sees themes in the original *Adventure* that made themselves part of modern games of seemingly different genres:

> [*Adventure*'s] themes of puzzle-solving, treasure-hunting, and interaction with fictional characters within a rule-bound otherworldly environment — as well as its branching structure of decision nodes navigated by the player — set the model for contemporary games such as *Myst* (1993) and *Half-Life* (1998).

Following the trail of adventure games that started from *Adventure*, it is possible to point out what makes them a genre of their own, and how that genre differentiates from other digital games.

Woods's expanded version of *Adventure* (figure 1) already portrayed many of the features that today remain central to adventure games. In *Adventure*, the player controls a nameless player character through a virtual world, a cave, that consists of interconnected rooms. The player is in indirect control of the player character, giving commands through a natural language interface, the parser. The player needs to pick up and use items to solve different puzzles in order to successfully traverse through the virtual world of *Adventure*.

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.run adven


WELCOME TO ADVENTURE!!  WOULD YOU LIKE INSTRUCTIONS?

yes

SOMEWHERE NEARBY IS COLOSSAL CAVE, WHERE OTHERS HAVE FOUND FORTUNES IN
TREASURE AND GOLD, THOUGH IT IS RUMORED THAT SOME WHO ENTER ARE NEVER
SEEN AGAIN.  MAGIC IS SAID TO WORK IN THE CAVE.  I WILL BE YOUR EYES
AND HANDS.  DIRECT ME WITH COMMANDS OF 1 OR 2 WORDS.  I SHOULD WARN
YOU THAT I LOOK AT ONLY THE FIRST FIVE LETTERS OF EACH WORD, SO YOU'LL
HAVE TO ENTER "NORTHEAST" AS "NE" TO DISTINGUISH IT FROM "NORTH".
(SHOULD YOU GET STUCK, TYPE "HELP" FOR SOME GENERAL HINTS.  FOR INFOR-
MATION ON HOW TO END YOUR ADVENTURE, ETC., TYPE "INFO".)
                                - - -
THIS PROGRAM WAS ORIGINALLY DEVELOPED BY WILLIE CROWTHER.  MOST OF THE
FEATURES OF THE CURRENT PROGRAM WERE ADDED BY DON WOODS (DON @ SU-AI).
CONTACT DON IF YOU HAVE ANY QUESTIONS, COMMENTS, ETC.

YOU ARE STANDING AT THE END OF A ROAD BEFORE A SMALL BRICK BUILDING.
AROUND YOU IS A FOREST.  A SMALL STREAM FLOWS OUT OF THE BUILDING AND
DOWN A GULLY.

east

YOU ARE INSIDE A BUILDING, A WELL HOUSE FOR A LARGE SPRING.

THERE ARE SOME KEYS ON THE GROUND HERE.

THERE IS A SHINY BRASS LAMP NEARBY.

THERE IS FOOD HERE.
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Figure 1. *Adventure* begins with a description of the first room in the game.

A famous graphical adventure game *The Secret of Monkey Island* (figure 2), published by Lucasfilm Games in 1990, can be described rather similarly. In *The Secret of Monkey Island*, the player controls a player character via a point-and-click interface, moving between the interconnected screens of the virtual world, collecting items and solving puzzles in order to traverse through the story of the game. The most striking differences between these games are those of presentation: moving from a completely textual representation to a graphical one, and switching from the seemingly infinite possibilities of typing natural language commands to a point-and-click user interface, where the possibilities are limited to the interactables on the screen. While *The Secret of Monkey Island* contains a richer, embedded story in comparison to *Adventure*, where the story mainly emerges from the actions of the player, what exists at the core of these games remains similar: both have strong emphasis on exploring and puzzle-solving, and interacting with objects and characters inside the virtual world.

Figure 2. *The Secret of Monkey Island* boasts full graphics and a point-and-click user interface.

At the time of writing this thesis, it has been 27 years since the release of *The Secret of Monkey Island*, and approximately four decades since the emergence of the adventure game genre that followed the release of *Adventure*. A lot has happened between now and then. Before moving on, let us take a concise glance at the history of adventure games in order to capture their essence.

Between the years 1977 and 1979 a group of programmers at the Massachusetts Institute of Technology, Tim Anderson, Marc Blank, Bruce Daniels, and Dave Liebling, created *Zork* (figure 3), which became the second text adventure game to gather wider attention (Montfort 2003, 97-99). Blank and Liebling were among those at the Massachusetts Institute of Technology who went on to found Infocom, a company that ended up producing what Montfort (2003, 119) calls “the favorites of the commercial era” of text adventure games during the 1980s. Montfort (2003, 131) sees reasons why text adventures had to step aside from the commercial spotlight before the end of the 1980s, calling them “inaccessible, […], to those not adept at puzzle solving and not fluent in the dialect of English their parsers understood”.

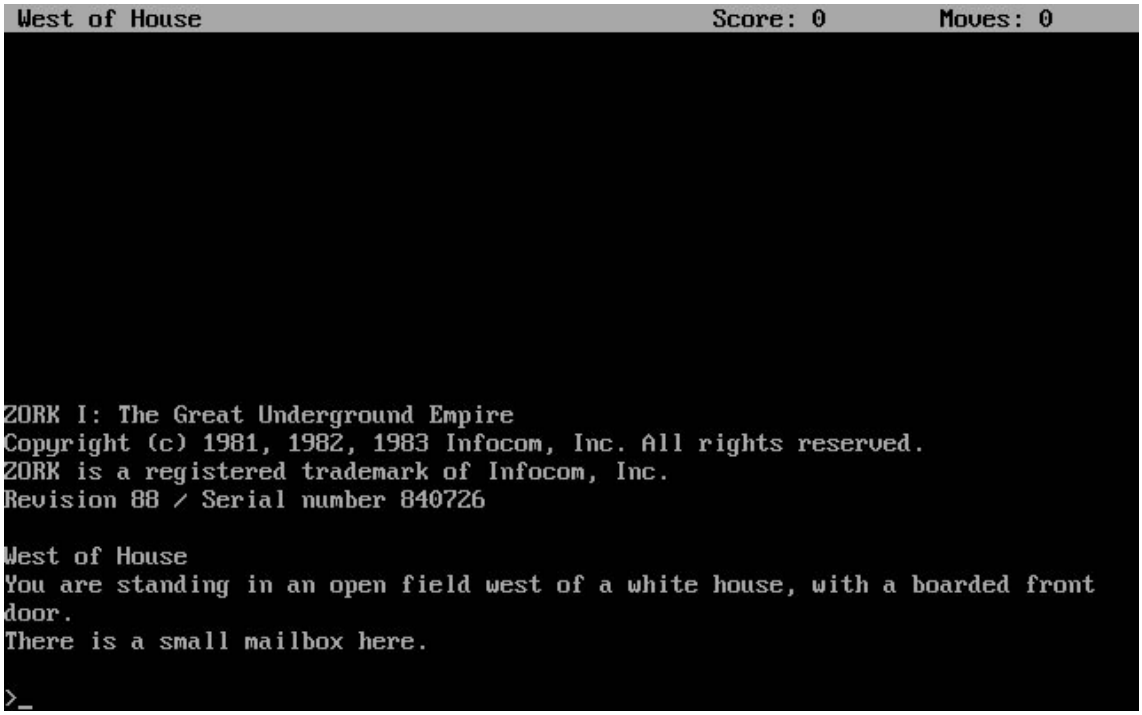

Figure 3. *Zork* was divided into three parts for the home computers.

Sierra On-Line, founded by Ken and Roberta Williams in 1979, created *King's Quest* (figure 4), the first adventure game with interactive graphics, in 1983. In *King's Quest*, the player was free to move the player character around the screen, but all the interaction with the virtual world was still accomplished via the parser. The first widely known adventure game to completely replace the use of parser with a point-and-click interface was *Maniac Mansion* (figure 5), designed by Ron Gilbert and Gary Winnick at Lucasfilm Games in 1987 (Kuorikoski 2015, 52-53).

Figure 4. *King's Quest* was the first adventure game with interactive graphics.

Figure 5. *Maniac Mansion* replaced the parser with a point-and-click interface.

Sierra On-Line and LucasFilm Games, renamed LucasArts in 1990, created some of the most successful point-and-click adventure games during what has been called 'the golden age' of point-and-click adventure games, in the years between 1990 and 1998 (Kuorikoski 2015, 87). *King's Quest, Space Quest* (figure 6), and *Gabriel Knight* (figure 7) were among the most known series of games developed by Sierra On-Line, while

LucasArts gathered success with the releases of *Day of the Tentacle* (figure 8), *Sam & Max: Hit the Road* (figure 9), and more entries into the saga of *Monkey Island*.

Figure 6. *Space Quest III: The Pirates of Pestulon.*

Figure 7. *Gabriel Knight: Sins of the Fathers*.

Figure 8. *Day of the Tentacle.*

Figure 9. *Sam & Max: Hit the Road.*

Adventure game sales started to plummet in the late 1990s, however, and soon they became a 'niche market' (Fernández Vara 2009, 4). One reason behind the plummet is that the success of adventure games invited others to try and copy the successful

formula, which ended up in large quantities of poor adventure games (Kuorikoski 2015, 173). At the same time, the development costs were on the rise. When adventure games failed to sell enough copies to answer to the demand of those costs, they were doomed as unprofitable investments, thus halting their production (Kuorikoski 2015, 187).

Today, adventure games, among other genres from the niche market, are experiencing a resurrection of sort, thanks to the emergence of digital distribution, crowdfunding, and new development tools, which all add up to cutting costs and increasing sales (Kuorikoski 2015, 286).

After getting to know the genre via this arc of adventure game history, I will begin to take a closer look into the intrinsic nature of adventure games.

2.1.2. Adventure games are story-game hybrids

Jesper Juul (2005, 67) sees *Adventure* as the beginning of a foundationally different tradition of games. He describes this tradition as 'games of progression', a newer structure compared to 'games of emergence'. According to Juul, games of progression are games that "directly set up each consecutive challenge", where as games of emergence "set up challenges indirectly because the rules of the game interact". *Super Mario Bros.* (figure 10) is a good example of games of emergence, as in *Super Mario Bros.* there are many ways to succeed, as well as many ways to fail. This is made possible by the rule system in the game, which provide a lot of freedom for action to the players. *Broken Age* (figure 11) and other adventure games that rely on problem-solving instead of action, is a clear game of progression, as there usually is only one way to succeed, yet multiple ways to fail. In other words, Juul sees adventure games as systems where the player is stuck in the current state until they find the one correct thing to do that lets them move forward to the next state.

Figure 10. The rules of *Super Mario Bros.* interact to set up challenges for the player.

Figure 11. In an adventure game like *Broken Age*, each challenge is directly set up.

Although Juul's description of adventure games as 'progression games' is seemingly a comment mostly about the rule systems at the base of these games, it also includes an insight about how adventure games combine games with storytelling.

Mary Ann Buckles called *Adventure* a 'story-game' in her doctoral dissertation already in 1985, in probably the first attempt to study adventure games. Espen Aarseth has also called adventure games 'story-game hybrids', whereas Clara Fernández Vara refers to them as 'story-driven games'. (Lessard 2013.) This dualism between game and story is indeed one defining aspect of adventure games. Greg Costikyan (2007, 6) points out the immediate problem that emerges from this combination:

> [T]here's a direct, immediate conflict between the demands of story and the demands of a game. Divergence from a story's path is likely to make for a less satisfying story; restricting a player's freedom of action is likely to make for a less satisfying game.

Finding the right balance between a linear story, and a nonlinear game, is tough. Both are fragile creations already on their own. Create a story and then tell it out of order, you are likely to diminish the impact it has on the reader. Create a game where it is impossible for the player to stray from the given path and experiment with the rules of the system, you are likely to diminish the feeling of control and of making meaningful choices that the player is supposed to have when playing a game. According to

Costikyan (2007, 6-8), this problem can be solved via proper constraining of the gameplay in order to tell a story through play. He sees that adventure games tend to solve this problem by being 'beads-on-a-string' in nature:

> [A]dventure games tend to be "beads-on-a-string": small areas where there is some freedom of action until some event occurs, at which point a transition to the next bead is opened. While there is some freedom within the beads, the overall game is a linear progress through the beads.

I think this is a good way to describe not only the nature of adventure games, but also many other story-driven game genres that drew inspiration from the original *Adventure*. Simply put, the beads in Costikyan's description represent the 'game part' of adventure games, where the player is free to explore the current possibility space and experiment with the rules of the system, and the string represents the 'story part', where the player becomes a more passive observant of the story that is unfolding due to their previous actions in the game. What Costikyan overlooks, however, is that the beads tend to overlap. In other words, the "small areas where there is some freedom of action until some event occurs" do not necessarily have to be exhausted before the player can proceed to the next bead. Instead, there tends to be an abundance of things for the player to do in the virtual world of an adventure game that does not have anything to do with the current situation of the story, yet the game does not restrict the actions of the player. Fernández Vara (2009, 4) recognizes this aspect of adventure games:

> A closer look at adventure games reveals that, even though they usually have a single solution, the actions and events do not always have to develop in a single order, nor is the player always limited to solving the puzzles that will advance the story.

An example of this can be found in *Day of the Tentacle* (figure 12), where the player character Bernard is supposed to find plans for a super battery to help his friend Hoagie build an electrical outlet. The plans are situated right next to the player character to pick up and move forward in the story of the game, but if the player chooses to ignore this and instead explores the surroundings, they can do other things, like find and pick up a hamster and put it in the freezer, with no apparent reason. There comes a time when the player has to put the hamster in the freezer, but not until much later in the game. There are much more examples of this type of overlap between the beads in *Day of the Tentacle* alone. This is one reason why some might take adventure games as rather

confusing, but when well executed, this aspect of adventure games provides the player with the illusion of freedom inside the very constrained rule system of the game. This illusion of freedom makes the player feel like they are making meaningful choices and in control of the events in the game, instead of being railroaded through the story.

Figure 12. *Day of the Tentacle* nods the player towards the right direction, but leaves other possibilities open as well.

After this first glance at the constant struggle of balancing between the story and the game that is in the heart of adventure games, let us now look at the two sides of adventure games, the literariness and the gameness, separately.

2.1.3. The literariness of adventure games

Nick Montfort (2003, vii) has done research on interactive fiction, which complements the study of adventure games. He describes interactive fiction works as

> computer programs that display text, accept textual responses, and then display additional text in reaction to what has been typed. […] For a work to be interactive fiction, as the term is understood by those who use it today, it must be able to react to input meaningfully.

Although the history of interactive fiction spans a much longer time period than digital games, *Adventure* can be seen as the first digital game that can be counted as interactive fiction. In fact, Montfort (2003, 6) sees text adventures such as *Adventure* a subgenre of

interactive fiction, where "the interactor controls a player character who sets out on out-of-the-ordinary undertakings involving risk or danger". Interactive fiction is a fit term to highlight the literary nature of adventure games, but unfortunately, by definition, it dismisses this merit from graphical adventure games such as *Day of the Tentacle*, where the textual input is replaced by a point-and-click interface, and a hefty piece of the story is told via animated sequences instead of a textual response, no matter how meaningful stories they might tell.

Espen Aarseth (1997, 94) displays a different kind of approach by introducing the term 'ergodic literature' to describe the literary qualities of all adventure games, borrowing the term 'ergodic' from the field of physics: "*ergodic*, which implies a situation in which a chain of events (a path, a sequence of actions, etc.) has been produced by the nontrivial efforts of one or more individuals or mechanisms". His viewpoint on adventure games telling meaningful stories is a more broad-minded one:

> The adventure game is an artistic genre of its own, a unique aesthetic field of possibilities, which must be judged on its own terms. And while the apologists certainly are wrong, in that the games will never be considered good novels, they are right in insisting that the genre may improve and eventually turn out something rich and wonderful. This may or may not happen, so the only way to understand the genre is to study the various works that already exist and how they are played. (Aarseth 1997, 107.)

Aarseth (1997, 113) looks past the interface between the player and the system, highlighting the requirement of 'nontrivial effort' to traverse the text. He enlightens this concept by comparing playing adventure games to reading difficult novels, where the player, or the reader, has to stop, think, and maybe even go through some previously gained information once in a while in order to proceed and simultaneously keep track of the events of the text. Just like the player of an adventure game is likely to stray away from the story every now and then in order to experiment with the rule system of the game, a reader of a difficult novel might get lost in their thoughts and lose track of the story. In both cases it might be beneficial, and sometimes even crucial, to backtrack to the previous point where they still had the story of the text clear in their minds.

Although Montfort only counts text adventures as works of interactive fiction, thus giving them literary merit over graphical adventure games, his remarks on the similarities between literary riddles and interactive fiction seem to fit to the study of

graphical adventure games as well. Montfort (2003, 51) writes that "the riddle, like an [interactive fiction] work, must express itself clearly enough to be solved, obliquely enough to be challenging, and beautifully enough to be compelling". In other words, text adventures must be aesthetically pleasing in presentation, contain a clear goal for the player, and present appropriate challenge to make traversing through the game nontrivial.

In Montfort's definition, the term 'literary' is reserved only for textual representation of storytelling. Rognhild Tronstad (2005) has challenged this line of thinking:

> Even if the *literary* is highlighted as one of the criteria uniting Interactive Fiction and the literary riddle in Montfort's definition, I don't think the medium of text is a precondition for the comparison to be fruitful. The other and more significant similarities identified are between factors we find on the level of genre, or form, rather than factors tied to medium. This implies that the model of the literary riddle may be transferable from text based adventure games to graphical games of the same genre.

According to Tronstad, form should come before medium in the case where the literariness of a work is discussed, thus giving the same possibilities for acquiring literary merit to all adventure games, whether textually or graphically represented. Murray (1997, 274) also stresses this importance, when she writes about storytelling in the digital era: "[t]he real literary hierarchy is not of medium but of meaning".

Choosing to accept Tronstad's way of thinking, it is now possible to say, to paraphrase Montfort's description, that an adventure game must express itself clearly enough to be solved, obliquely enough to be challenging, and beautifully enough to be compelling, in spite of the medium of choice.

Linking graphical adventure games to concepts such as interactive fiction, ergodic literature, and the literary riddle helps to show how they tell stories through play, and how their literary qualities can be evaluated. Next, let us explore the gameness of adventure games.

2.1.4. The gameness of adventure games

Clara Fernández Vara (2009, 117) highlights how the study of adventure games has been too focused on the literary qualities, comparing adventure games to other

storytelling media, while lacking a games research point of view, when she writes that "[a]dventure games may be 'story-game' hybrids, but little attention has been paid to how they are actual games and how they are designed".

In her definition of adventure games, Fernández Vara (2009, 13) stresses the aspects of exploration and puzzle solving, that provide the basic interaction for these story-driven digital games:

> Adventure games are story-driven videogames, which encourage exploration and puzzle solving and always have at least one player character. The basic interaction of adventure games is based on object manipulation and spatial navigation. Their challenges usually appear in the form of concatenated puzzles, which are integrated in the fictional world.

According to Fernández Vara, the player of an adventure game controls a single or multiple player characters, and through object manipulation and spatial navigation solves the puzzles integrated in the virtual world in order to traverse the story of the game. The basic interactions in adventure games, object manipulation and spatial navigation, are also described in the user manual of *Day of the Tentacle*:

> Pick up everything you can. Odds are, at some point all those strange things will serve some purpose. If you get stuck and can't figure out how to proceed, try looking through all the items you've found and thinking about how each might be used (perhaps with yet another item in your inventory). Think about the places you've gone, and the people you've met. Chances are, there will be a connection that will put you back on track.[1]

Exploring the virtual world, picking up items, and talking to non-player characters in order to receive insight on problems that need to be solved, then using this knowledge to find the correct use of an item to overcome these problems to continue the story of the game roughly sums up the most common tasks the player does in an adventure game.

Another defining aspect of adventure games is the lack of an active opponent. It is the puzzles, and ultimately figuring out the virtual world itself, that provides the challenge in an adventure game. Mark J. P. Wolf (2007, 81) sees this as the most critical difference between adventure games and other digital games:

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[1] *Day of the Tentacle* manual (LucasArts 1993)

> Attempting to define the genre in such a way as to be distinct from other genres, it appears that the game's world and the player's use and experience of it are at the core of the adventure game. Many adventure games, while they have monsters and other characters opposed to the player's character, often do not have an antagonist in the classic sense. The game's world itself takes on that role, as players attempt to learn its geography and the navigation of it, to gain access to its hidden, closed, and locked areas, and learn to use the various objects and devices within it.

Adventure games are driven by stories. For these stories to happen, there needs to be a virtual world that they can be set in. Stories also tend to include a protagonist, the player character. Sometimes they include several. Then, there can be other characters, that either help or oppose the player character in what they intend to accomplish in this virtual world. Then there is the constant mystery, something that hinders the progression of the story. This mystery provides the gameplay to adventure games, presented as puzzles. The puzzles in adventure games are intertwined in the virtual world of the game, which means that the player has to gain and use knowledge about the virtual world in order to solve them. Solving a puzzle rewards the player, usually in the form of revealing more of the story, or making new areas available for exploration.

Janet Murray (1997, 138) has written that "[o]ne of the consistent pleasures of the journey story in every time and every medium is the unfolding of solutions to seemingly impossible situations". Puzzles are at the heart of adventure games, and the process of solving them is what brings the most pleasure to the player. In the next chapter, I will show what makes solving puzzles so pleasurable, and how adventure games make use of this property.

2.2. Puzzles

This chapter delves into the world of puzzles. Later in this thesis I will be looking into the workings of puzzles in the 1993 point-and-click adventure game *Day of the Tentacle*. Before that can happen, it is important to understand what puzzles are and in which ways are they present in adventure games. The main interest of this thesis being the puzzles' ability to elicit pleasure in the person who is solving them, a close look into the connection between puzzle-solving and pleasure is also required.

2.2.1. Puzzles are a peculiar type of problems

The word ‘puzzle’ itself might mean different things to different people. Truly, many kinds of puzzles exist, and they require seemingly different approaches to solve. There are math and logic puzzles, jigsaw puzzles and crossword puzzles, and riddles, to name a few. In this thesis however, a puzzle is seen as a peculiar type of problem, that requires more than straightforward reckoning to solve. Adventure games tend to make use of these types of problems. Marcel Danesi (2002, 27) describes the nature of these ‘atypical’ problems in his book *The Puzzle Instinct: The Meaning of Puzzles in Human Life*:

> The word “puzzle” is probably derived from the Middle English word *poselet*, “bewildered, confused.” It is an apt term because, unlike the typical problems found in textbooks, which are designed to test knowledge of specific mathematical principles, puzzles generate bewilderment and confusion. They do so by concealing either a pattern or a twist or trap within the information they present.

Danesi (2002, 2) thinks that mysteries and puzzles are “intrinsically intertwined in human life”. By this he means that they have existed for as long as the human race itself for a reason. He suggests that puzzles create “a feeling of suspense that calls out for a relief”, and claims that solving an intriguing puzzle results in a state of ‘mental catharsis’, similar to the sense of emotional relief that experiencing a story unfold in a drama generates. Danesi (2002, 35) wraps this cycle of spotting a problem and feeling the urge to solve it in order to reach the state of mental catharsis into a concept he calls ‘the puzzle instinct’, which he proposes comparable to our instinct of humor:

> [W]hen something “hits our funny bone,” as the expression goes, our diaphragm pulsates up and down, and we laugh. Similarly, when we are given a puzzle to solve, our mind sharpens, […] and we set out to find a solution, as if by instinct, until we are satisfied cathartically.

By making this comparison, Danesi seemingly wants to point out that it is difficult to say exactly what it is about a piece of humor that makes us laugh, and how it is similarly hard to say exactly why people like solving puzzles.

2.2.2. Puzzles in adventure games

As portrayed in the story about the peculiar troll-person guarding a bridge who is fond of red fish, told in the introduction chapter of this thesis, adventure games tend to have a logic of their own when it comes to the workings of their virtual worlds and the puzzles that inhabit those worlds. In order for this to work, adventure games have to get the player to accept and to utilize this strange order of things.

Clara Fernández Vara has studied the puzzles found in adventure games, and how solving them usually requires following a path of logical steps, accompanied with a leap of insight thinking, to reach the solution. According to Fernández Vara (2009, 124), a puzzle in an adventure game is

> a challenge where there is no active opponent, but rather it is a problem that needs a solution. The solution entails logical thinking, rather than physical skills, and it is the result of insight thinking. Puzzles usually have a single solution, even if it may be possible to obtain it in more than one way.

Veli-Matti Karhulahti (2012) notes that these kinds of puzzles can be found also outside adventure games, and prefers the term 'fiction puzzle', which he defines as

> a mental challenge where there is no active opponent. It is integrated to a story world and there is usually a solution, which may be possible to obtain in more than one way. The solution entails logical and insight thinking, and it is attained by interacting with the story world primarily through a player character.

The main difference between these two definitions of puzzles found in adventure games seems to be, that while Fernández Vara stresses the origin of this type of puzzle, which is adventure games, Karhulahti's (2012) focus is on the aspect of how the puzzles must be integrated into acting in the virtual world of the game:

> A typical fiction puzzle, however, is neither a literal question nor a jigsaw but has its own unique mechanics. These mechanics are based on manipulating objects and characters of the story, that is, interacting with the existents of the story.

Danesi (2002, 133) also highlights the peculiar nature of puzzles when compared to other challenges that require problem-solving by saying that "a puzzle is indeed a small work of art that stimulates curiosity and provides a kind of aesthetic pleasure all its

own". In this thesis, I choose to use the term 'adventure game puzzles', to keep the close relationship between these types of puzzles and adventure games clear.

Adventure game puzzles contain some qualities which make solving them a different kind of challenge than, say, riddles. Even though Fernández Vara and Karhulahti stress the use of logical and insight thinking to reach the solution to a puzzle, another equally important quality of adventure game puzzles is included at the end of Karhulahti's (2012) definition: "[the solution] is attained by interacting with the story world primarily through a player character". When given a riddle to solve, the riddlee can presume that they have all the information needed to solve the riddle. To solve an adventure game puzzle however, the player usually has to first recognize that there is a puzzle that needs to be solved, as this is rarely explicitly introduced. Second, they need to explore the virtual world, by controlling a player character, to gain knowledge and pick up items that might be included in the solution, and third, they need to see how the puzzle is solved with the information that they have collected around the virtual world. Where in solving a riddle, the riddlee processes the given information until the solution reveals itself through an insight, in solving an adventure game puzzle the player gathers pieces of information, one by one, by interacting with the virtual world through a player character, then constructs these pieces into a unified whole, a novel piece of information, towards a point where they can see the solution reveal itself, thus solving the puzzle.

Montfort (2003, 47) argues that "[t]he riddlee who has truly reached a solution should be able to completely explain the riddle-question and how each of the metaphorical clues operates". This understanding of riddles can be extended to cover adventure game puzzles as well. Tronstad (2005) says that "[l]ike riddles, puzzles always have a correct solution which is easily recognisable the moment we become aware of it". Fernández Vara (2009, 125) ties this into the context of a game playing experience, when she stresses that

> A puzzle is not a tug-of-war - if the player is stumped by the puzzle, it may be a failure on the part of the designer if there was not enough information to solve it. Even when the player is given the solution, the logic of the puzzle should make sense to the player, otherwise the player will feel cheated.

This is where many adventure games stumble, and it can thus be seen as a difficult task to accomplish. Game designer Bob Bates (2004, 128) has famously titled this type of puzzles, where the logic of the puzzle seems to make sense only in the mind of the designer, as 'designer puzzles'. He sees that designers encounter this pitfall when they try to outsmart the player, instead of building the puzzle so that the designer works as the player's partner, helping them to gain important information when they need it:

> Problems also arise when the designer sets out to prove that he is smarter than the player. […] You're as much the player's partner as his adversary. He's relying on you to give him the information he needs to play the game. He will admire you more for playing fair than for showing off your storehouse of unusual knowledge.

Unsuccessful puzzle design, resulting in these designer puzzles described by Bates, is seen as one of the reasons why adventure games failed to upkeep the commercial success they obtained in the 1980s and the 1990s (Fernández Vara 2009, 134). Where, arguably, planning and then executing when, where and how to move and to use your weapons forms the main challenge in first-person shooters, solving puzzles forms the main challenge in adventure games, and implementing such a critical part of a game requires special attention.

2.2.3. The pleasures of puzzle-solving

According to Fernández Vara (2009, 13), puzzles, integrated into the virtual world of the game, form the main challenge in adventure games. Laura Ermi and Frans Mäyrä (2005) have studied how challenge works as one of the components which make the player feel immersed in the gameplay experience, together with sensory immersion, "related to the audiovisual execution of the game", and imaginative immersion, "in which one becomes absorbed with the stories and the world, or begins to feel for or identify with a game character". Ermi and Mäyrä (2005) describe this challenge-based immersion as "a satisfying balance of challenges and abilities", where the challenge is based on either motor or mental skills of the player, and see this type of immersion as a centric part of digital games:

> challenge-based immersion has an essential role in digital games since the gameplay requires active participation: players are constantly faced with both mental and physical challenges that keep them playing.

Ermi and Mäyrä (2005) describe immersion in general as “becoming physically or virtually a part of the experience itself”, highlighting the escapist nature of digital games, where active participation and immersion play a central role.

Furthermore, Ermi and Mäyrä (2005) draw a connection between their study and the flow theory by Mihaly Csikszentmihalyi (1990), where maintaining a successful balance between the challenge and a person’s skill level results in a “highly intensive state”, where “one is fully absorbed within the activity”, by making a note on how

> [d]igital games are generally excellent in providing opportunities for flow-like experiences since the challenges they present are often gradually becoming more demanding and thus players end up acting at the limits of their skills.

How this relates to adventure game puzzles, however, needs some clarification.

Csikszentmihalyi’s (1990, 74) ‘flow channel’ (figure 13) presents that the player would be fully absorbed by the activity when their skills are an optimal match to the given challenge. Moreover, as the player’s skill level increases during a game play session, so should the level of challenge increase in relation to it, to keep the player from falling into a state of frustration and anxiety, if the challenge feels too overwhelming compared to their skill level, and on the other hand to prevent the player from slipping into a state of boredom, if the challenge feels too easy for them. Staying inside the flow channel, between the states of boredom and anxiety, suggests that the player is having fun, and presents itself thus as the most wanted state of emotion during gameplay.

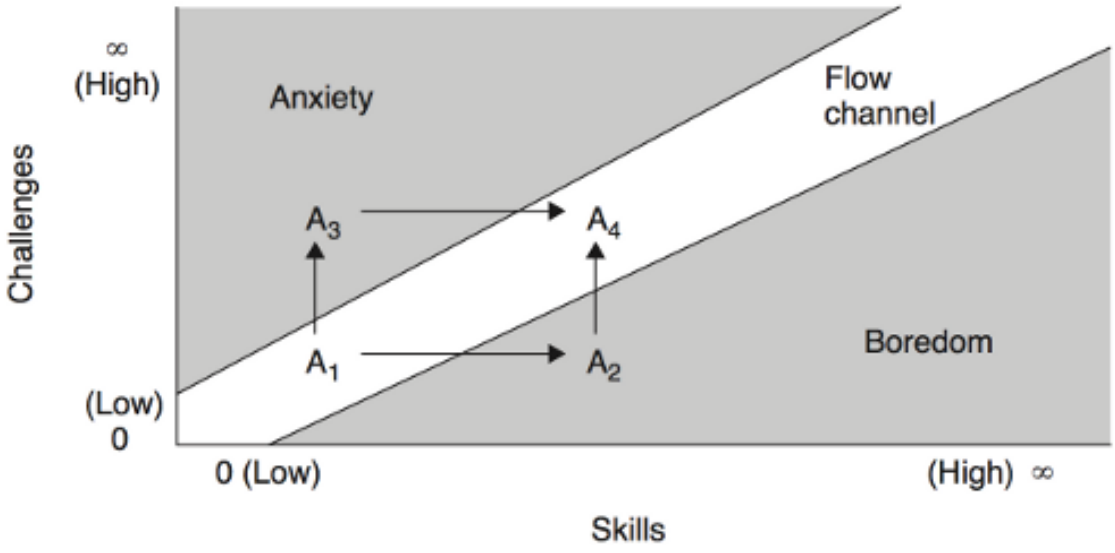

Figure 13. Anxiety and boredom loom at the edges of the flow channel.

Ermi and Mäyrä (2005) remind us about the complex nature of fun and pleasure, arguing that

> fun and pleasure are complex concepts. Playing games does not always feel fun: on the contrary, it quite often appears to be stressful and frustrating. […] When players manage to cope with a given situation successfully, the arousal is turned into euphoria, and the players experience this kind of cycles of suspense and relief as pleasurable.

This characterization fits well to the workings of adventure games, and to their puzzles. As long as the solution to a puzzle eludes the player, they reside mainly in the realm of anxiety and frustration. When finally, through a flash of insight, the solution of a puzzle reveals itself, the mood of the player can be imagined to spike up and momentarily reach the flow channel, much like in the 'cycles of suspense and relief' described by Ermi and Mäyrä.

Aside from using logical and insight thinking, solving puzzles in adventure games requires exploration of the virtual world, engaging in conversation with the non-player characters, and manipulating objects to find out their specific functions. All these actions are trivial when it comes to execution, and present no challenge to the player in themselves. Virtual worlds of adventure games rarely include active opponents, thus reducing the need for the use of motor skills. In point-and-click adventure games like *Day of the Tentacle*, conversation with the non-player characters is done by clicking through options in a dialogue tree, and all the possible ways to interact with any object are presented on the screen as a verb list. Digital games such as adventure games, that rely mostly on mental challenges, thus constantly return the player outside of the flow channel, into states of anxiety, frustration, and boredom, because traversing the virtual world provides no challenge in itself. The reason, why adventure games still remain fun and pleasurable games, lies in the way they integrate their puzzles as part of the fiction of the game, and how they provide the player with the intellectual kick, produced by the solution to a puzzle revealing itself through a flash of insight.

Marcel Danesi's (2002, 226-227) argues that puzzles are pleasurable in themselves, as small works of art, in a sense that

> [t]he suspense that accompanies an attempt to find a solution to a challenging puzzle, or the anxiety that develops from not finding one right away, is a significant part of what makes the puzzle so fascinating and engaging. Like detective stories, puzzles are solved by a mixture of imagination and logic.

According to Fernández Vara (2009, 124) and Karhulahti (2012), adventure game puzzles must be integrated into the storyworld of the game. Although puzzles in adventure games can be clever just by themselves, how I see what makes them 'works of art' in this particular context is the way they are interwoven into the fiction of the game, making them inseparable from the story. This connects with Janet Murray's (1997, 138) description about how "[o]ne of the consistent pleasures of the journey story in every time and every medium is the unfolding of solutions to seemingly impossible situations". Fernández Vara (2009, 135) has also highlighted this aspect of puzzle-solving about 'doing the right thing', from the perspective of the player character, as one component adding to the pleasure derived from puzzle-solving in adventure games. Seeing the protagonist, i.e. the player character, ultimately reaching a solution to a problem, while simultaneously meeting the player's expectations about the way the situation would be solved, considering the setting in the virtual world of the game, thus creates these cycles of suspense and relief that provide feelings of pleasure in the player.

In addition to creating pleasure to the player through their integration into the fiction, adventure game puzzles are capable of producing an intellectual kick in the player, when the solution to a puzzle is reached through a flash of insight. Insight thinking can be thought of as thinking outside the box of sort, to reach a new way of thinking, which leads to a novel idea that provides the solution to a problem, or in the case of adventure games, a puzzle. Marcel Danesi (2002, 32) describes how insight thinking

> allows physical intervention to be eliminated, permitting humans to envision the physical world in abstract ways which allow them to discover real properties of that world.

Danesi (2002, 30) argues that solving a puzzle through insight thinking provokes an Aha! or Eureka! effect in the person who solves it, providing them with feelings of relief, pleasure, and triumph. Danesi (2002, 227) describes this "peculiar kind of

pleasure that puzzles produce" as 'an aesthetics of mind', comparing this effect to what he presents as 'an aesthetics of emotion':

> Poetry and music, for instance, evoke a cathartic response that imparts a sense of meaningfulness to existence. This can be called, more specifically, an aesthetics of emotion. One does not have to know musical theory or technique in order to recognize the beauty and emotional force of a piano concerto by Mozart. Mozart's art triggers our senses and emotions directly.

Using this comparison, Danesi aims to show that no special skills are required to enjoy solving puzzles, but instead every person naturally possesses the puzzle instinct, which makes us interested in and capable of solving puzzles, similar to our ability of enjoying a brilliant piece of music.

Another question I have yet to answer is how do adventure game puzzles provide these Aha! or Eureka! effects, or flashes of insight? And what happens if they fail to do so? In the next chapter, I will take a close look into the theory about the nature of insight thinking by Robert Sternberg (1985), and through examples show how this theory can be used to analyze adventure game puzzles.

2.3. Insight thinking

In this chapter I will describe a theory that I deem relevant to the study of puzzles in *Day of the Tentacle*, and puzzles in adventure games in general: Robert Sternberg's (1985) theory about the nature of insight thinking.

Fernández Vara (2009, 123-124) stresses that the solution to any puzzle in an adventure game must involve insight thinking, or otherwise it cannot be called a puzzle in the first place. I have previously in this thesis described insight thinking only as 'thinking outside the box'. To be able to use this theory to support my analysis, it must be further discussed in greater detail. So, let us now take a closer look at the concept of insight thinking, and how it plays an important role in solving puzzles in adventure games.

Insight was studied by Gestalt psychologists in the early part of the 20th century. They called it an "unconscious leap of thinking", describing an event where a solution to the problem at hand emerges suddenly and without any warning. (Sternberg 1985, 79.) Marcel Danesi (2002, 27) has later described insight thinking as "the ability to see with

the mind's eye the inner nature of some specific thing". Insight thinking can be thought of as the opposite of straightforward reckoning, where the presented challenge is solved using a simple routine (Juul 2005, 93). Cleverly constructed math puzzles, for example, can be solved using either (Danesi 2002, 33-35). Solving adventure game puzzles requires using both (Fernández Vara 2009, 124; Karhulahti 2012).

In the 1980s Robert Sternberg and Janet Davidson deemed the description of insight by Gestalt psychologists insufficient, and proposed that in fact insight "involves not one but three separate but related psychological processes". Utilizing one or more of these processes results in insight thinking. These three processes are called selective encoding, selective comparison, and selective combination. (Sternberg 1985, 80.) Fernández Vara (2009, 131) claims that "[m]ost of the solutions to puzzles in adventure games can be reached by following one of these three processes".

I will be paying close attention to these processes of insight thinking in my analysis, and how they are used in solving the puzzles in *Day of the Tentacle*. But first, let us look at how these three processes of insight thinking are supposed to work, and how they can be linked to the study of puzzles in adventure games.

2.3.1. Selective encoding

According to Sternberg (1985, 80) "an insight of selective encoding involves sifting out relevant information from irrelevant information". He presents the discovery of penicillin as an example of this psychological process:

> In looking at a petri dish containing a culture that had become moldy, Fleming noticed that bacteria in the vicinity of the mold had been destroyed, presumably by the mold. In essence, Fleming encoded the information in his visual field in a highly selective way, zeroing in on that part of the field that was relevant to the discovery of the antibiotic.

Selective encoding thus seems to apply to situations where there is information overload. It also applies when relevant piece of information is purposely hidden amidst noise in order to pose a challenge. Selective encoding can also be seen as "the use of information that may have originally seemed irrelevant but that may become crucial in due course" (Danesi 2002, 28), or as "making apparently irrelevant information relevant" (Fernández Vara 2009, 129).

Fernández Vara (2009, 129) states that selective encoding is "a typical tactic in riddles and minute mysteries, also in puzzles where you have to find the hidden image", hidden object games, where the player has to find a specific interactable object from a screen amidst other objects that are non-interactable, being an example of digital games that rely heavily on this process of insight thinking. In adventure games though, the process is usually less straightforward and thus more rewarding, like in this example of selective encoding in *The Secret of Monkey Island*:

> The player character, Guybrush Threepwood, has to buy an expensive map to find the treasure of Mêlée Island. However, when he buys it, he finds out it is a diagram for dancing steps instead. He confesses to the player he believes he has been swindled; it is up to the player to figure out that the diagram is the real map. The dance steps are actually a set of instructions for navigating the forest and getting to where the treasure is buried. The diagram seems like a piece of irrelevant information, since the player character believes it is not the map he needs. The player has to realize that it actually provides relevant information to find the treasure, because it tells her what exit to take on each screen (up, down, left, or right). (Fernández Vara 2009, 131.)

2.3.2. Selective comparison

Similarly, Sternberg (1985, 80-81) describes selective comparison as an insight that involves "relating newly acquired information to information acquired in the past". Sternberg sees "problem solving by analogy" as an example:

> A famous example of an insight of selective comparison is Kekulé's discovery of the structure of the benzene ring. Kekulé dreamed of a snake curling back on itself and catching its tail. When he woke up, he realized that the image of the snake catching its tail was a metaphor for the structure of the benzene ring.

Situations where the solution to a problem at hand presents itself after an insight about the ways it is similar to some previously experienced situation utilize this process of selective comparison. Danesi (2002, 28) calls this "the discovery, often through analogical and metaphorical thinking, of a nonobvious relationship between new information and information already in memory", and Fernández Vara (2009, 129) similarly describes selective comparison as "the use of analogies and metaphors in order to draw a non-obvious relationship between two pieces of information".

Fernández Vara (2009, 129) calls selective comparison another basic tactic of riddles, "which in essence are metaphors or similes". She exemplifies how selective comparison works in *The Secret of Monkey Island*:

> Guybrush needs a job, and there is a circus in town which needs someone to test their cannon. He needs a helmet in order to become the test human bullet. There are no helmets on the island, but a cooking pot is close enough —especially one where, as the player character notes, "someone has cooked a headcheese." The employers think that the pot is good enough as a security measure and hire Guybrush. (Fernández Vara 2009, 131.)

2.3.3. Selective combination

Finally, selective combination is described by Sternberg (1985, 80) as an insight that involves "combining what might originally seem to be isolated pieces of information into a unified whole that may or may not resemble its parts", or "knowing how to put together the pieces of information that are relevant". He sees Darwin's formulation of the theory of evolution as an example of selective combination:

> It is well known that Darwin had available to him for many years the facts he needed to form the basis for the theory of natural selection. What eluded him for those years was a way to combine the facts into a coherent package.

Selective combination can thus be seen as a process of first understanding the worth of separate pieces of information, possibly via selective encoding, and then realizing that only the combination of these information pieces into a totally new one solves the posed problem. This has been described as "the discovery of nonobvious pieces of information that can be combined to form a novel information and ideas" (Danesi 2002, 28), or happening when "different pieces of information are merged in order to form a novel one" (Fernández Vara 2009, 130).

Fernández Vara (2009, 130) sees selective combination applying to jigsaws, mathematical puzzles, and acrostics, aside from adventure games. She also portrays this process as "probably the most common type of puzzle" in adventure games. She shows how selective combination is used in *The Secret of Monkey Island*:

> One of the puzzles requires the player character to cook a magical potion, for which he has the recipe. However, Guybrush is on a ship in the middle of the ocean and he does not have all the proper ingredients, so he must find

> substitutions: for example, breath mints can work as leaves of mint, and red wine as two pints of monkey blood. (Fernández Vara 2009, 132.)

All of these processes of insight thinking are required in order to solve the puzzles of *Day of the Tentacle*. Oftentimes, insight thinking is needed only at the breaking point of the puzzle, when the player has already acquired all the necessary pieces of information related to it. Yet sometimes it is the flash of insight that initially sets up the puzzle, as the player sees a problem in the virtual world and immediately comes up with a possible solution, using the gathered knowledge they have about the virtual world of the game. In my close reading, I will show how these processes take turns in solving the puzzles of *Day of the Tentacle*, and how insight thinking is always needed in order to ultimately reach the solution.

Now that I have presented theoretical grounds for this thesis work, it is time for my research goal to take form.

2.4. Research goal

After reviewing the literature related to the subject of my thesis, I will highlight the aspects I deem most relevant in my own research. At the end of this chapter I will present my research goal, which emerges from this literature review.

Clara Fernández Vara (2009, 124) and Veli-Matti Karhulahti (2012) have both provided definitions for adventure game puzzles. Karhulahti prefers the term ‘fiction puzzle’, as he sees that these types of puzzles are not exclusive to the adventure game genre, and to highlight how they must be integrated into the fiction of the game. According to them, puzzles in adventure games are defined as mental challenges without an active opponent, a problem in need of a solution. There is usually a single solution to a puzzle, which can be obtained in one or more ways. The puzzles in adventure games need to be integrated into the story, and solving them must advance the story as well as the game. Most importantly, solving a puzzle in an adventure game requires both logical and insight thinking.

My aim is to better understand the relationship of puzzles and pleasure in adventure games. In order to grasp an understanding of this phenomenon, I have to look past these definitions and further into the discussion about both puzzles and pleasure.

Marcel Danesi (2002, 30; 133; 227) sees puzzles as problems that, at first, create confusion and bewilderment, but after solving them result in feelings of relief, triumph, and pleasure. He calls the type of pleasure that solving puzzles produce 'an aesthetics of mind', in comparison to 'an aesthetics of emotion', which he uses to describe the feeling provoked by artistic works, like poetry or music. Danesi links this 'intellectual pleasure', as he also calls it, to feelings of ingenuity and cleverness, and claims that it is usually provoked by an Aha! or Eureka! effect. Danesi (2002, 226-227) sees that intellectual pleasure is a result of imagination and logic, where the 'intellectual kick' is ultimately gained by a sudden moment of clairvoyance, a flash of insight. To describe the aspects that make puzzles provide these feelings of relief, triumph, and pleasure, he adds suspense and anxiety to the equation:

> [P]uzzles are pleasurable in themselves. The suspense that accompanies an attempt to find a solution to a challenging puzzle, or the anxiety that develops from not finding one right away, is a significant part of what makes the puzzle so fascinating and engaging.

It is already possible to see, that this link between puzzles and pleasure is evident, but rather difficult to pinpoint very accurately, because of the multiplicity of phenomena related to it.

Nick Montfort (2003, 51) sees riddles as the origin of interactive fiction and the puzzles that they contain. He argues that both a riddle and a work of interactive fiction "must express itself clearly enough to be solved, obliquely enough to be challenging, and beautifully enough to be compelling". I deem this criteria useful also for evaluating adventure game puzzles. Danesi (2002, 227) has a similar theory, a theory that he calls 'the aesthetic index of a puzzle':

> Needless to say, some puzzles are more intellectually pleasurable than others are. The aesthetic index of a puzzle, as it may be called, seems to be inversely proportional to the complexity of its solution or to the obviousness of the pattern, trap, or trick it hides. Simply put, the longer and more complicated the answer to a puzzle, or the more obvious it is, the less appealing the puzzle seems to be. Puzzles with simple yet elegant solutions,

> or puzzles that hide a nonobvious principle, have a higher aesthetic index. […] The aesthetic index is also very high when solving a puzzle or contemplating some mathematical proof or demonstration produces a paradoxical result.

This combination of a simple, yet elegant solution seems like a good description of an intellectually pleasurable puzzle. A puzzle with a simple, yet elegant solution can be understood as a mental challenge that the player can wrap their head around: not too complex, but not too obvious. Rognhild Tronstad (2005) agrees:

> One of the characteristics of a good riddle or puzzle is that after we've solved it – or even been told its solution – this solution will appear obvious to us. If the solution still appears far-fetched it is simply not a very good puzzle.

Karhulahti (2014) criticizes this theory of an aesthetic index, as he sees difficulty and challenge as immeasurable properties by saying that "a given task is never equally challenging to all performers", and recommends focusing only on elegance when measuring the intellectual pleasure gained from solving a puzzle. How I see it, solving a puzzle that requires the combination of three seemingly separate objects is always more complex than one that requires combining only two of them, so keeping challenge as a property for evaluating the intellectual pleasure of a puzzle feels relevant to me. As I will show in my close reading of *Day of the Tentacle*, this is also one way of adding challenge into the game later, when the player has been given a certain time to get used to the game mechanics and the logic of the virtual world. In other words, a certain amount of challenge can be implemented into a puzzle in relation to other puzzles in the game, but it is indeed impossible to know for certain how challenging that ends up being to any particular player.

According to the definitions presented earlier in this thesis, the puzzles in adventure games are integrated into the story of the game, and solving them thus takes the story forward. This can be seen as another source of pleasure, on top of the pleasure derived from the puzzle itself. Janet Murray (1997, 138-139) links pleasure and satisfaction to situations where solving the puzzle has dramatic appropriateness with the story, such as helping the hero to escape from danger, thus "increasing our belief in the solidity and consistency of the illusory world". Fernández Vara (2009, 135) highlights a similar aspect, by saying that instead of getting pleasure out of being immersed in the game, the

pleasure is provided “from performing what seems correct in the context given”. She continues with a statement of “[i]f it has not been properly set up in the simulation, the behavior will not seem proper, and synchronization of the player with the story will be broken.”

So on the one hand, the puzzles in adventure games have to be simple, yet elegant, in order to provide intellectual pleasure to the player once solved. On the other hand, pleasure is also gained by doing the right thing, from the viewpoint of the protagonist, the player character, and seeing the story unfold as a result of the player’s actions. Accomplishing both these tasks can thus be seen as the ultimate goal of any adventure game puzzle.

I deem this intersection of simple, yet elegant puzzles that fit into the fiction of the game, i.e. into the story and the virtual world, the most important source of pleasure found in solving puzzles in adventure games. Additionally, I believe that any feelings of disconnect or inconsistency in the solving of a puzzle, or in how it fits to the fiction, are the biggest sources of frustration and anxiety in adventure games. This can also result in players feeling themselves lost, or as a What? effect, in comparison to the Aha! effect gained by a flash of insight that makes the solution to a puzzle reveal itself.

In my analysis, I will focus on these properties of *Day of the Tentacle*. My presumption is, that in a highly valued adventure game such as *Day of the Tentacle*, the puzzles are, for the most part, both well-crafted, and interwoven into the fiction. Still, I presume that breaking the illusion of a consistent virtual world that ties the fiction and the puzzles together can be accomplished rather easily, as the player is quite free to move around and experiment in the virtual world of *Day of the Tentacle*, and that breaking this illusion results in the player feeling themselves disconnected, frustrated, anxious, and lost.

In addition, I am expecting to learn more about the nature of this peculiar type of pleasure that solving puzzles in adventure games provokes through my close reading. Furthermore, I aim to use my gained knowledge about *Day of the Tentacle* and its puzzles to add to the concept of intellectual pleasure, and to identify different ways

through which adventure game puzzles and adventure games as a whole produce feelings of pleasure in the player.

In the upcoming methodology chapter, I am going to discuss different approaches to the analysis of digital games by first recognizing the needs of this study and then focusing on finding a suitable method for my game analysis.

3. METHODOLOGY

This thesis aims to produce a deep understanding of adventure games and their puzzles. To succeed, I will perform a game analysis on a chosen representative of the genre by applying a close reading method.

This chapter explores game analysis as a tool for studying games and the applicability of close reading as a method for game analysis, presenting the strengths and challenges of close reading when it comes to analyzing games in general, and adventure games in particular. In this chapter I will also discuss the position of the reader, i.e. the player, and how important it is to include both the viewpoint of the naïve player and that of an academic into the close reading.

3.1. Game analysis

Frans Mäyrä (2008, 156) sees at least three main areas within game studies: the study of games and their structures, understanding game players and their play behaviors, and the research of game design and development. My research interest falls mainly into the first category, the study of games and their structures. It is still important to keep in mind that, as Mäyrä notes, that "there is much overlap and interaction between and within the research done in all these three main areas". One way of studying games and their structures is a game analysis, a concept I will be using from this point onwards to describe this area of game studies.

Game analysis seems like a difficult concept to grasp, however. In her book *Introduction to Game Analysis*, Clara Fernández-Vara (2015, 8) describes games as "a strange medium", because of their unique property of interaction between the platform and the reader:

> So games are a strange medium, where the communication takes place as a constant cycle of players making sense of the game, figuring out what they want to do, and seeing what happens. It is a medium that, by necessity, establishes a dialogue between the game and the players, and amongst players.

Fernández-Vara (2015, 56-57) divides game analysis into three building blocks: the context, game overview, and formal aspects. Where studying the context of a digital game makes it possible to situate the game historically, culturally, socially, or economically, and a game overview provides the content, the basic features that distinguish the game from others, the formal aspects of a digital game are the main focus of this game analysis. According to Fernández-Vara, this area of game analysis studies the structure of the text of a digital game: how the game is presented to the player and how it works, emphasizing the creation of hypotheses on why it is so, and how this all relates to the player's experience.

Lars Konzack (2002) created a methodological framework for analysing computer games already in 2002, where he divided a game into seven layers which could then be analyzed "to understand games better". These seven layers are hardware, program code, functionality, gameplay, meaning, referentiality, and socio-culture. Espen Aarseth (2003) has called this attempt to create a methodological framework for analysing games "probably the first" in game studies. Konzack's work has merit in making these different layers in digital games visible by explaining how the game is presented to the player and how it works, but it lacks the in-depth analysis of the meaning behind the presentation, and how it relates to the player's experience. A deeper analysis would probably reveal insight about the game design, which is now left uncovered.

To uncover these meanings behind the presentation, Diane Carr (2009) approaches games as playable texts. Drawing from the field of literary studies, Carr proposes textual analysis as a method to study how meaning emerges during play. In her study, the textual analysis of a game looks past where a particular work comes from or how it was made, but instead concentrates on how it is unmade by the reader, that is, the player of the game. This method does not touch upon all the seven layers proposed by Konzack, but offers an approach that is more focused on interpreting and understanding a game through play. Fernández-Vara (2015, 9) also believes that textual analysis can be used to reveal insight about a particular work, insight that can then be developed towards general theories:

> Textual analysis is the in-depth study of a text […], using the text as a sample or case study to understand a specific issue or topic. By using inductive reasoning and analyzing specific texts, we can develop general theories that can be applied to other works. The strategies of textual analysis go beyond interpreting the piece or event itself: part of it is trying to make sense of the text, while it may also address the varied ways in which different people can interpret it.

This is something that Janet Murray (1997, 143) already noted in her book *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*, in 1997, when she wrote that "[g]ames can also be read as texts that offer interpretations of experience"

Jim Bizzocchi and Joshua Tanenbaum (2011) point out that many games researchers, including Carr, use methods adapted from literary theory. Bizzocchi and Tanenbaum suggest that these studies are actually using close reading techniques for their analyses, but that they fail to draw the connection. They propose that a suitably theorized close reading methodology for studying digital games should be developed. Bizzocchi and Tanenbaum (2011) are themselves involved in this process, and they have used close reading to "reveal insights into the design of games, and also into the variety of pleasures afforded by game experience, such as imagination, emotion, kinesthetic engagement, narrative immersion, and ludic flow."

Encouraged by Bizzocchi and Tanenbaum's example, I will also embrace the term 'close reading', instead of textual analysis, to describe the "detailed examination, deconstruction, and analysis of a media text" (Bizzocchi & Tanenbaum 2011), in order to include myself in this process of further developing the close reading methodology for studying digital games. I feel that studying digital games with this method is in line with previous work, and that close reading has a lot to give to game studies, and vice versa.

Starting from the three main areas of game studies, making use of one of the three building blocks of game analysis, and choosing textual analysis, or close reading, as the method for the analysis in order to gain in-depth knowledge about a particular work and to understand a specific issue inside it, we have now come down a winding path to reach a suitable method for studying the pleasures of puzzle-solving in adventure games. Next, lets take a closer look at the selected method for my game analysis, close reading, and how it suits for the purposes of studying digital games.

3.2. Close reading

Close reading is a technique from literature theory. It is used for a detailed examination, deconstruction, and analysis of a media text. Close reading was originally formulated by John Crowe Ransom and other 'New Critics' in the late 1930s and the early 1940s in opposition to a dominant school of literary criticism interested in the historical and social contexts in which a work was produced, suggesting that the text should be analyzed as an object itself, separate from the historical and social contexts. The technique has since evolved, and it has been used to study other types of media as well, such as theatre, film, and, most recently, games. (Tanenbaum and Bizzocchi 2009; Bizzocchi and Tanenbaum 2011)

According to Tanenbaum and Bizzocchi (2009), close reading can be understood as making meanings from a text by reading and re-reading it over and over, using the meanings that transpire from a reading to make new ones. It is a hermeneutic process that helps a scholar to achieve a deep understanding of a work.

3.2.1. Close reading digital games

Recently, close reading has established itself as a valuable method for analyzing digital games. Three books, *Well Played 1.0*, *Well Played 2.0*, and *Well Played 3.0*, and a journal called *Well Played Journal* have been dedicated to close readings of digital games since the year 2009. Contributors in the books and the journal are scholars, developers, reviewers and bloggers. Jim Bizzocchi and Joshua Tanenbaum have also published several research papers in different academic journals, where they apply the close reading method to the study of digital games (Tanenbaum and Bizzocchi 2009; Bizzocchi and Tanenbaum 2012; Tanenbaum 2015).

Tanenbaum and Bizzocchi (2009) have used close reading as a method to study character believability and intelligent personalization in *Elder Scrolls: Oblivion*. By replaying through the opening sequence of the game several times, Tanenbaum and Bizzocchi manage to map out the ways in which *Elder Scrolls: Oblivion* adapts to player actions during that sequence.

In addition, Bizzocchi and Tanenbaum (2012) have studied, using a close reading method, the narrative design of *Mass Effect 2*. By using an "'edge-case' strategy for exploring the limits of character, action, and story in the game", i.e. "purposefully testing the outer limits of a design", they managed to gain insight on how the narrative design of *Mass Effect 2* works, highlighting the player's ability to move within the boundaries of the pre-set, main narrative arc of the game, making meaningful choices.

Close reading an interactive digital media artifact such as a digital game presents some challenges unique to the medium. Bizzocchi and Tanenbaum (2011) present three challenges of close reading digital games: indeterminacy, scope, and difficulty. By these they mean to say that games are different experiences for each player, can contain a vast amount of information, and require specialized skills such as hand-eye coordination and logical thinking, respectively. Tanenbaum (2015) has later introduced a fourth challenge: random access and bookmarking. This challenge addresses the way in which the player is not always allowed to return to a specific part in the game whenever they wish to, depending on the save game policy of the particular game. This can make reading a work rather cumbersome in a case where the player needs to go through some parts of the game again and again to reach the part they wish to closely examine.

3.2.2. Close reading adventure games

Close reading as a method for game analysis seems to suit studying adventure games well. Adventure games often provide rich virtual worlds with seemingly infinite possibilities for experimentation, when in reality only a handful of predetermined actions are accepted, which limits the scope of the game. In most cases they do not involve active opponents or time limits, which reduces the need for trained hand-eye coordination and thus makes them more accessible to a wider audience. This is not to say that adventure games are not at all affected by the aforementioned challenges, but to highlight the aspects of adventure games that make them susceptible to close reading. Adventure games might also come with challenges unique to the genre, and such findings would be worth noting during the close reading process.

Scholars have pointed out similarities between reading a novel and playing an adventure game. Jesper Juul (1999, 57) highlights the lack of an active opponent or a time limit in his comment on *Myst*:

> In Myst, time stands still when the player doesn't act. There is never any urgency, no demands on the reaction time of the player. This is in some ways similar to the temporal freedom granted to the reader of a novel.

Juul (1998) also compares adventure games and other games that have high emphasis on storytelling to "trashy" novels, that are only read once and then discarded, because they offer limited gameplay compared to games of emergence:

> It then appears that trying to add a significant *story* to a computer game invariably reduces the number of times you're likely to play the game. Literary qualities, usually associated with depth and contemplation, actually makes computer games less repeatable, and more "trashy" in the sense that you won't play Myst again once you've completed it. There's no point.

Aarseth (1997, 113-114) also draws this connection between literature and adventure games, when he talks about exhausting an adventure game in a similar way as one could try to exhaust a complex novel:

> A typical adventure game is not mastered by being "read" once but by being played over and over, as the way we reread a great and complex novel. In both cases, when we feel that there is nothing more to be discovered, we eventually lose interest.

These citations seem at first to be in contradiction, but when viewed in context it is revealed that Juul and Aarseth are in fact talking about two different things. Juul emphasizes the repeatability of a game as a feature that enables the player to spend a lot of time with it, whereas Aarseth focuses on the non-triviality of the effort needed to progress in the game.

3.2.3. The position of the reader

Close reading as a method relies heavily on the ability of the reader to successfully switch their position between a naïve reader and an academic (Bizzocchi and Tanenbaum 2012). This is needed to, at the same time, see the game as it is presented, without bringing too much foresight into the reading, and to find meanings behind these

representations in order to build an analysis of the game. Bizzocchi and Tanenbaum (2012) describe this as 'oscillating between two states':

> During a close reading, the scholar oscillates between two states. The first is an immersion within the experience of the game, undergoing the pleasures and frustrations of the unfolding gameplay. However, it is also necessary that the scholarly reader objectify the experience of the game, in order to see more clearly the design decisions that support the experience.

Switching positions like this during a close reading is a challenge in itself, and the results are always bound to include some subjectivity from the scholar's part. At the same time close reading offers infinite possibilities for new interpretations, which can all contribute towards the same goal, that is gaining a deeper understanding of the subject work. It is as Mäyrä (2008, 166) reminds us:

> It is likely that every critic of games will develop their own style of playing and appreciating games, and it should be pointed out that a game professional's approach is not necessarily a typical way of playing. Indeed, it is worth considering if there exists a 'typical' player or play style; every player has their individual history and preferences, having roots in their personality and experiences.

In my analysis I will be traversing through the story of *Day of the Tentacle* in what can be described as 'the optimal way', including only those parts of the game that I deem relevant to the analysis. I'm doing this because I want to map out aspects in the game that are somehow linked together, and to create a reading of how these wholes then make or do not make sense. I will end up with multiple playthroughs of the parts in the game that are included in the analysis, which makes me a kind of an expert player of these parts of the game, at the very least. This means that I might take some things for granted, if they feel sensible to me from the very first time forwards, or point out other things as problematic, if they did not make sense to me immediately. Another reader of the same part of the game would get different results, because, as Mäyrä (2008, 166) notes, "every player has their individual history and preferences, having roots in their personality and experiences".

I will not, however, rely on any external sources, i.e. information that is not provided inside the computer program *Day of the Tentacle*, and as a result my close reading of the game will not draw from game reviews, developer commentaries, walkthroughs, or from any such documents regarding *Day of the Tentacle*. I will thus follow in the

footsteps of researchers such as David Myers (2010, 41), who believe that "[c]lose reading consciously avoids all interpretations referring to and depending on elements extrinsic to the text". Arguably this provides me with the possibility of using my own skills as a reader to come up with an analysis of my own about the subject work, instead of encountering the danger of embracing existing opinions and reflecting my thoughts on them.

Calling myself an expert player of *Day of the Tentacle* as a result of the hours spent playing the game during my close reading process is a problematic statement, however. Myers (2010, 69) highlights the differences between being an expert level game player and having expert level knowledge about the game:

> Expert status is achieved with full and thorough knowledge of computer game object-value relationships and with the corresponding assimilation of those relationships at some habituated and visceral level. Because of this latter requirement, full and thorough knowledge of game mechanics is not alone sufficient to locate and produce the computer game aesthetic.

While I am relying only on the knowledge about *Day of the Tentacle* gained by playing the game myself, I am certainly missing some aspects of the expert player portrayed by Myers. This being said, having played other adventure games and thus being familiar with the conventions of the genre, I do possess applicable knowledge about the game mechanics of adventure games, and can thus be seen as having skills of an experienced game player coming into the game. This further highlights the possibilities and limitations of this kind of study, where the researcher is relying mainly on their own abilities to exhaust and analyze the subject work in a way that provides useful information to the field.

With these possibilities and limitations accompanying the chosen method of close reading in mind, I will now move towards the detailed examination, deconstruction, and analysis of the subject work, i.e. my close reading of *Day of the Tentacle*.

4. CLOSE READING DAY OF THE TENTACLE

This close reading of *Day of the Tentacle* aims to discover how pleasure, in the intellectual sense, emerges from puzzle-solving in adventure games. I will apply my understanding of adventure games, puzzles, and the theory of insight thinking primarily to describe and analyze the ways puzzles work in *Day of the Tentacle*, and secondarily to describe and analyze the genre and the medium as a whole, when applicable.

Day of the Tentacle is selected as the game for this analysis because it is a classic within the adventure game genre, often regarded as one of the best adventure games ever made[2]. Such highly valued adventure games can be expected to have both well executed narrative as well as excellent puzzles. Having played through *Day of the Tentacle* once before, I think that it excels in both, and thus has lots to offer about the subject of pleasurable adventure game puzzles.

Before I jump into the close reading itself, I will provide an overview of *Day of the Tentacle* in order to highlight those aspects I feel are relevant to this study. Additionally, I am going to spend a chapter discussing the relationship between the player and a player character in adventure games, and in *Day of the Tentacle* in particular, as it has a critical role in my analysis. Then, I will describe my chosen data collection method, and discuss other possible ways for gathering the data, and why I chose to exclude them. After providing this premise, I am going to present my analysis, in the form of the close reading, together with the results.

4.1. Overview of Day of the Tentacle

Day of the Tentacle is a "mind-bending, time travel, cartoon puzzle adventure game in which three unlikely friends work together to prevent an evil mutated purple tentacle from taking over the world"[3]. It was originally released in 1993 by LucasArts, and re-released in 2016 by Double Fine Productions as *Day of the Tentacle Remastered*, featuring new artwork, remastered audio, music and sound effects, and a new interface.

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[2] Have You Played… *Day of the Tentacle*? https://www.rockpapershotgun.com/2015/11/09/day-of-the-tentacle-review/

[3] *Day of the Tentacle Remastered* homepage. http://dott.doublefine.com

For my analysis, I will be playing the remastered version of the game, as it is more convenient to run with my personal equipment. For the experience to be as authentic as possible, I have all the new features of the remastered version turned off while playing the game, so it looks and feels as close as possible to the original release of 1993. I prefer the original experience in my analysis primarily because it makes comparing my findings from this particular game to its contemporaries easier, as adventure games of this time period tended to share the same, or a similar interface. Secondarily, me being already familiar with the original version of the game makes it easier to focus on the content, looking past the presentation. How the remastered user interface guides the player towards the solutions to the game's challenges, compared to the original, would definitely be an interesting research topic of its own.

Day of the Tentacle is a point-and-click adventure game which features themes from both fantasy and science fiction, including talking tentacles and time machines. Montfort (2003, 6) highlights how adventure games should always include out-of-the-ordinary undertakings for both the player and the player character, a characterization that goes well with the quirky story *Day of the Tentacle* tells.

Despite the fantasy and science fiction themes, the main theme of *Day of the Tentacle* is humor. Like many Lucasfilm Games adventure games of the time, *Day of the Tentacle* is full of gags. Starting from the wacky graphical style, through eccentric characters, to witty dialogue and comical puzzles, there is rarely a serious tone present in the game.

The game starts off with an animated sequence, presenting the embedded story of the game to the player, as is typical to adventure games and story-driven games in general (Fernández Vara 2009, 16). This sequence shows the mansion, occupied by Dr. Fred Edison, an inventor, and his relatives. Two tentacles, Purple and Green, who also live with the Edisons as their pets, are talking near the river that flows from under the mansion. The river has turned toxic because of Dr. Fred's Sludge-O-Matic, a machine that generates bio-waste and dumps it into the river. Purple Tentacle drinks some of the water, mutates into an evil mastermind, and plans to take over the world. Dr. Fred catches both tentacles and intends to kill them, before they can cause any trouble. Green Tentacle, who did not taste the toxic water and remained a loyal pet, manages to send an appeal for help to his close friend Bernard, who lives nearby with his two friends. The

game begins when Bernard, together with his friends Hoagie and Laverne, arrive at the mansion, aiming to free the tentacles before it's too late.

The virtual world of *Day of the Tentacle* is divided into screens, which is also in the tradition of adventure games (Wolf 2007, 81). The player can move the player character around by clicking on the screen, or move them to other adjacent screens. This implies the use of the 'walk to' verb (figure 14). There are nine additional verbs that the player can use with highlighted objects and characters in the virtual world: give, pick up, use, open, look at, push, close, talk to, and pull. Objects and characters are considered highlighted when they make a textual description appear on the screen while being hovered upon by the cursor.

Figure 14. Ten ways to interact with the virtual world of *Day of the Tentacle*.

There are three main activities to do in the game: exploration, conversation, and object manipulation. Solving puzzles often requires making use of all of these activities.

Walking around in the virtual world of *Day of the Tentacle* feels like progressing through a series of theatre stages that are eternally stuck rehearsing the same part in a play. Nothing else in the world moves from one screen to another in real time except for the player characters. The location or the activity of a non-player character may change only in response to a player action. Exploration is the basis for progressing in the game, as it gives the player an idea of the possibility space of the current situation in the form

of which parts of the virtual world are available to visit, and which characters and objects are available for interaction.

Conversation with the non-player characters has many purposes. *Day of the Tentacle* features a few language puzzles, where a problem is solved using only words, i.e. selecting the correct lines of dialogue during the conversation. Most of the time, though, conversation is used to provide motive for the player and/or the player character to do something, or give hints to how a situation could be solved. Sometimes a dialogue works simply as a reminder of what the player is supposed to be doing, in case they forget. There is no 'quest log' to keep track of what the player is supposed to do next, and not all dialogue is replayable, so it can be easy to lose the trail.

Object manipulation, the picking up and using the interactable objects scattered around the virtual world in the most mind-bending ways, is the most common way to ultimately solve the puzzles in *Day of the Tentacle*. Once picked up and thus in the inventory, objects can be combined with other objects in the inventory for different effects, or used together with objects or characters in the environment. A bucket of water and a piece of soap can be combined to make a bucket full of soapy water, and quarters can be put in a coin-operated washing machine found in a utility room.

Acting in the virtual world of *Day of the Tentacle* is done through these three activities. On top of that, the player has to keep track of the game and actively sustain and increase their knowledge about the virtual world in order to make progress in the game. In the analysis, I will present how all these activities are required in the puzzle-solving process, and how insight thinking plays a critical role in coming up with solutions to the puzzles in *Day of the Tentacle*. I will also point out how solving a puzzle can produce an unwanted feeling of disconnect when the player fails to see the connection between the solution and the initial setting of the puzzle.

Before presenting my data collection method and delving into the close reading, I want to discuss one additional aspect of adventure games, that is also present in *Day of the Tentacle*. This aspect is the relationship between the player and the player character.

4.2. The relationship between the player and the player character

What makes adventure games and other digital games with controllable avatars interesting, is the relationship between the player and the player character. The player controls the player character through a physical interface, a mouse and a keyboard in the case of *Day of the Tentacle*, and thus shares the constraints for action with the player character: if there is no control over making the player character jump implemented in the game, it does not matter how good the player themselves might be at jumping. On the other hand, if the player character is equipped with seemingly supernatural powers of deduction that exceed the player's own abilities, it extends the player's skill set, instead of diminishing it. This means, that the player and the player character together form a new kind of entity, that is actually the one traversing through the game.

In *Day of the Tentacle*, the player is rarely addressed inside the fiction (aside from a few times when the game intentionally breaks the fourth wall): everything that happens in the story of the game, happens to the player characters. The player guides them into and out of peculiar and sometimes dangerous situations, but is not ever directly in danger themselves. Then again, the player characters in *Day of the Tentacle* are poor at coming up with solutions to the many puzzles standing in the way of progress in the game. When the player guides the player characters to act in a certain way to reach a solution to a puzzle, the ultimate course of actions is always produced in the player's mind, even if the player characters might provide some hints on how to proceed with the task at hand.

Bob Rehak (2003) notes that already the first, text-only adventure game *Adventure* was about "textual collaboration between player and program", where the "hybrid player-avatar" was the entity traversing through the virtual world of the game. *Adventure* included a narrator, similar to a dungeon master in *Dungeons & Dragons*, who addressed the player as 'you', which made this hybrid player-avatar an 'I' of sort. I think that this is a fitting way of thinking about the relationship between the player and the player character in *Day of the Tentacle*, and in adventure games in general.

In my close reading, I will address this aspect of adventure games by highlighting the shared responsibility of the player and the player character, as they work together to

reach the end of the story, and, simultaneously, the game. I will put weight on this special relationship by using the phrasing ‘me and X’, where the X is replaced by the player character I am controlling at the given moment, when I feel that me and the player character are working together as a unit, instead of separate entities. I think this will help to show how the collaboration between the player and the player characters is used rather cleverly in *Day of the Tentacle*, making use of both the skill sets of the player as well as the player characters to come up with solutions to the game’s many puzzles.

4.3. Collecting the data

I carried out my analysis by playing *Day of the Tentacle* on my laptop. I took screenshots of every situation and line of dialogue that I deemed relevant to the analysis manually, and arranged these screenshots in different folders, representing different parts of the game. This way I did not have to replay the game that much, which left me with more time to focus on the analysis. I also made use of all ten save slots available in the game, so that I could quickly go back to a certain part in the game, in case I wanted to see how the game would react if I did things differently, or if there was something I missed. With this method, I ended up with 836 screenshots, divided further into seven folders, based on the puzzle they were related to. I focused only on a very limited part of the game, representing approximately five percent of the whole experience, based on the progression meter that accompanies the save files in the game. I also took physical notes in a notebook, a total of eight pages. In these notes, I tried to form coherent wholes of the puzzles I was analyzing, including everything that had anything to do with the problem and the solution, and excluding everything that did not, to avoid redundant material from shrouding the relevant. I wrote down the events in the game as they happened, and in the side notes I speculated what might be the designed intent behind these events. I have provided a collection of photos about the process of data collection in figures 15, 16, and 17.

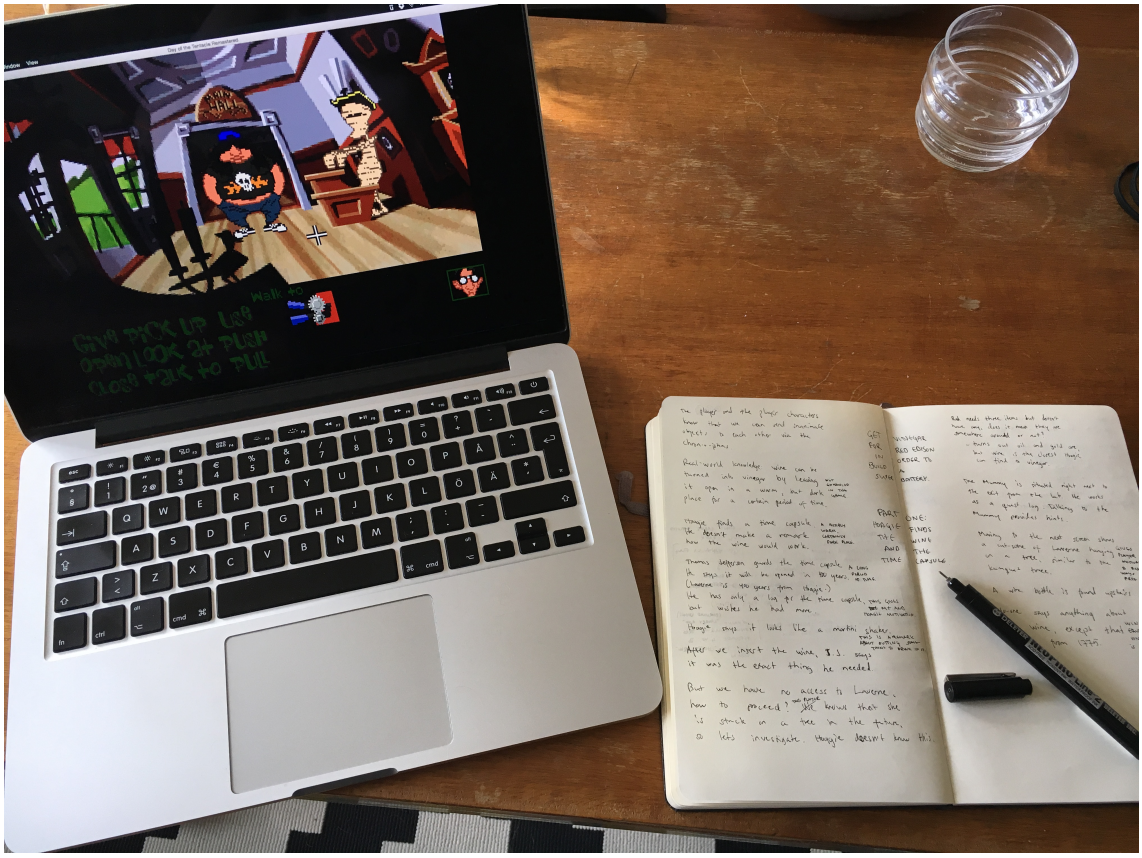

Figure 15. Me taking screenshots and notes while solving puzzles.

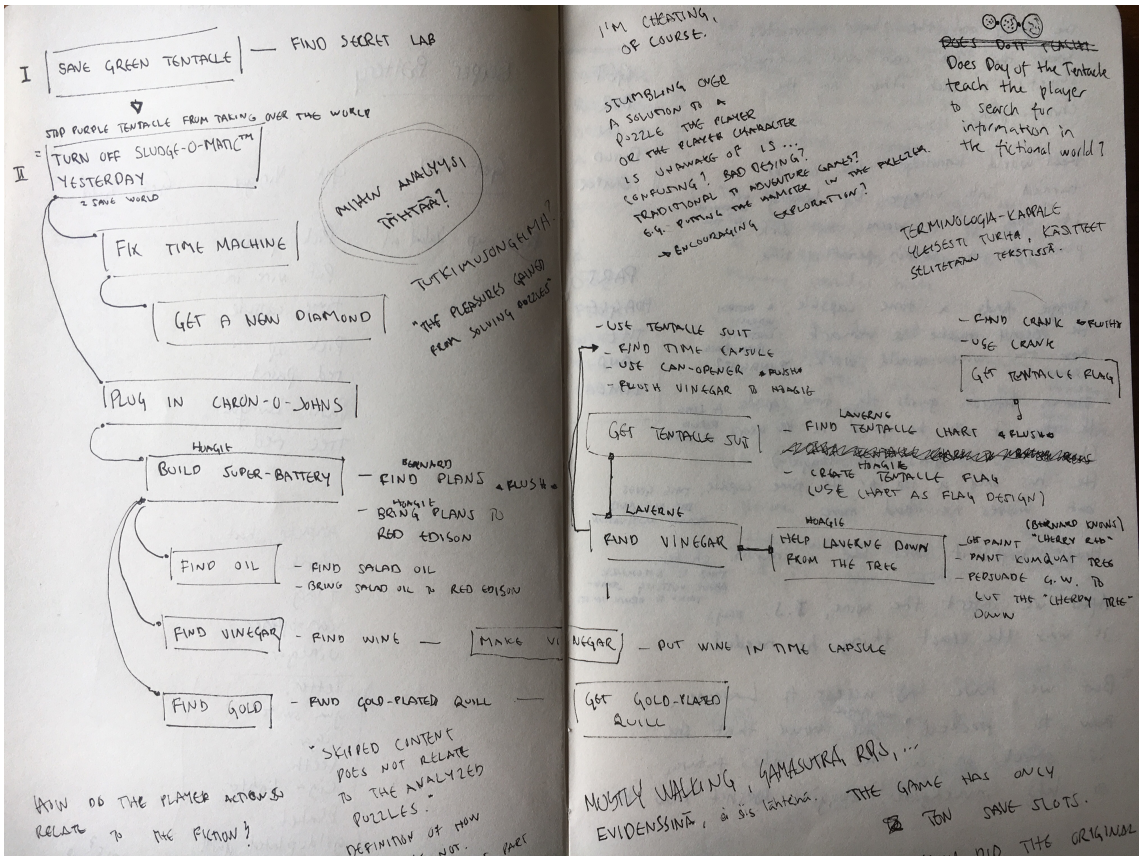

Figure 16. Mapping out the puzzles quickly reveals their meandering nature.

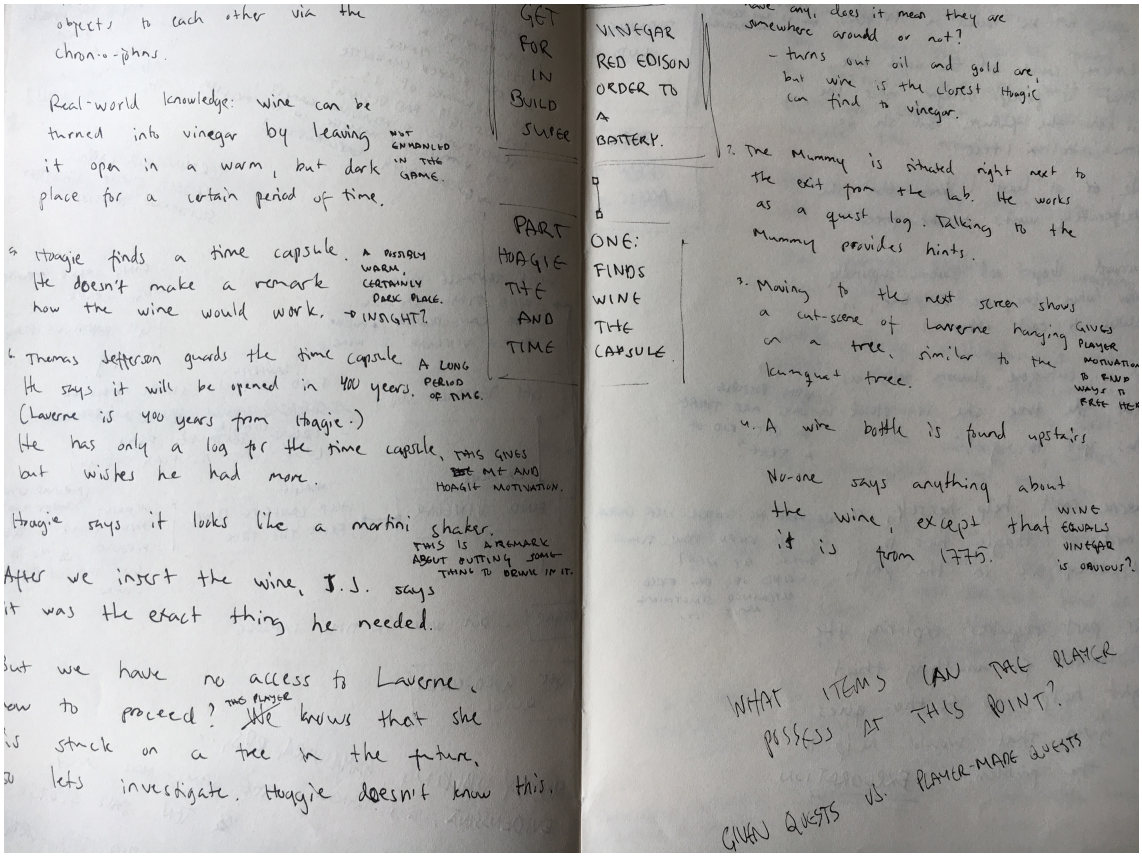

Figure 17. A textualization of a puzzle of comparatively small proportions.

By taking screenshots and notes of everything related to the puzzle at hand, I could focus on gaining a concise understanding of how it is presented in the game. To do this, I had to be aware of, and follow, the path that leads through the puzzle, in order to know what is relevant and what is irrelevant to the situation. I would have ended up with a completely different set of data if I had tried to solve the puzzles without any prior knowledge about the game, or had someone else be the player while I observed and took notes. Also, a video recording of my playthrough would have shown a different side of the experience, as lot of the time spent inside the virtual world of the game is used for walking around from screen to screen, mapping the space and trying out different strategies, like combining items with each other hoping to produce a potential outcome. A combination of these methods would probably result as a more comprehensive image of the puzzle-solving process, and how players are intended to progress in the game. However, I think this would have exceeded the scope of this thesis.

All things considered, I am content with the data set I ended up by using this method. I feel that my approach focuses more on how the puzzles are constructed, than on what

different kinds of experiences it is possible to evoke through them in different people. This supports my research goal of finding out how the puzzles in an adventure game can be cleverly built into the virtual world so that they have the possibility to provide the player with pleasurable moments.

4.4. Solving puzzles in Day of the Tentacle

In the following close reading of *Day of the Tentacle*, I will describe and analyze two consecutive parts in the story, built around certain puzzles in the game, to show how puzzles are constructed as part of the fiction in *Day of the Tentacle,* and in which ways they provide intellectual pleasure to the player. The events of the story described here follow those portrayed in my overview of *Day of the Tentacle*.

Soon after the initial animated sequence, Purple Tentacle manages to escape his captivity, and begins to put his evil plan into action. Dr. Fred tries to fix the problem by sending Bernard, Hoagie, and Laverne back to yesterday with his time machine, so that they could switch off the Sludge-O-Matic in the past and prevent this all from happening. The time machine ride goes wrong, however, and the gang ends up separated from each other in time. Laverne lands two hundred years in the future, Hoagie two hundred years in the past, and Bernard back to the present, where they all initially left from. They continue to occupy the same mansion, but are now stuck in different time periods, none of them landing back to yesterday where they could accomplish their task.

Now the first thing they need to do is to get everyone back to the present to try the time machine ride for a second time. That means finding a power socket for their individual Chron-O-Johns, the booths they occupied during the time travel, and fixing the busted time machine itself. Finding a power socket for their Chron-O-Johns is especially difficult for Hoagie, who is stuck in the past before the discovering of electricity.

Building a super battery for Hoagie to use as an electrical outlet to power up his Chron-O-John turns out to be one of the main puzzles in the game, as solving it requires the player to traverse through a considerable part of the story, and the game, along the way.

Dr. Fred and Bernard send Hoagie plans through Bernard's Chron-O-John on how to build a super battery to provide him the electricity he needs. All three Chron-O-Johns are mysteriously linked, so that they can be used to transfer small inanimate objects through time by flushing the objects down the hole in the middle of the booth. They tell Hoagie to bring those plans to a forefather of Dr. Fred's, Red Edison, who is also an inventor and could possibly build the device for Hoagie.

Their prediction is on point, as Red Edison indeed promises to build the super battery, if Hoagie can provide him with the necessary ingredients for it. Red says he needs oil, vinegar, and gold to piece it together.

As it turns out, not all the ingredients are easy to get. Oil is the only item that me and Hoagie can find lying around and to be picked up easily. Getting vinegar and gold require solving a series of puzzles to acquire.

Next, I will go through two parts of the puzzle of finding vinegar for Red Edison, showing how this puzzle quickly explodes into a multitude of smaller puzzles, forcing the player to explore the virtual world, engage in conversation with non-player characters, and manipulate objects to succeed. I will also highlight where insight thinking is needed, and how the feelings of triumph, relief, and pleasure are delivered to the player via this 'intellectual kick', that emerges when the solution of a puzzle presents itself, or, in other words, when the player is capable to "see with the mind's eye the inner nature of some specific thing" (Danesi 2002, 27).

4.4.1. Part one: the wine and the time capsule

In this first part of my close reading, I will present how *Day of the Tentacle* nudges the player gently towards discovering the solution to the puzzle at hand. It is a reward mechanism of sort. The game reveals information to a player who is ready to spend their time with the three main activities of the game: exploring the environment, engaging in conversation, and manipulating objects. Slowly building towards the solution, *Day of the Tentacle* ultimately leaves the final connection between the puzzle and its solution up to the player themselves to discover. This forms the actual mental challenge, that is solved by using both lateral and insight thinking. This part of the puzzle that I am going to describe here requires the use of selective combination, a

process of insight thinking where two or more separate objects are combined to form a novel one, as the key to solving the puzzle.

In search for vinegar, me and Hoagie start walking around the house, that currently — that is, in Hoagie's timeline, the past — works as an inn. Its layout is very similar to the mansion in the present, so we both can presume that it has at least a ground floor and a upper floor, and that there is a basement with the secret lab, and a yard. On our way, me and Hoagie meet some interesting people at the inn.

There is Benjamin Franklin, who is outside flying a kite. Then there are John Hancock, Thomas Jefferson, and George Washington, who are working on the United States Declaration of Independence. Thomas Jefferson is also collecting items for a time capsule, that is to be sealed and buried for four hundred years, for future generations to then open. Upon inspection, Hoagie remarks that, to him, it looks like a martini shaker (figure 18).

Figure 18. Hoagie can come up with one way of using the time capsule.

There is also Betsy Ross, the maker of the American flag. She is busy working on the sewing machine. Betsy says that after going through so many changes to the flag design already, she will now make any kind of flag as long as she gets the patterns for it handed on to her table.

Other characters inside the inn are a maid, who keeps George Washington's room in order, Red Edison's twin sons Jed and Ted, who are artists, a talking horse, a mute mummy, and a cat playing with a toy mouse. A colorful bunch, to say the least.

There are also a lot of items scattered around the inn for me and Hoagie to pick up, out of which a bottle of wine from 1775 seems like the closest to vinegar we can find (figure 19). Me and Hoagie try to bring it to Red Edison, hoping that it works as a replacement for vinegar. He rejects it though, accompanied with a rhetorical question of what he's supposed to do with it. This brings a halt to our quest, because there is no vinegar to be discover anywhere in the mansion. This is where the player needs to use insight thinking to proceed.

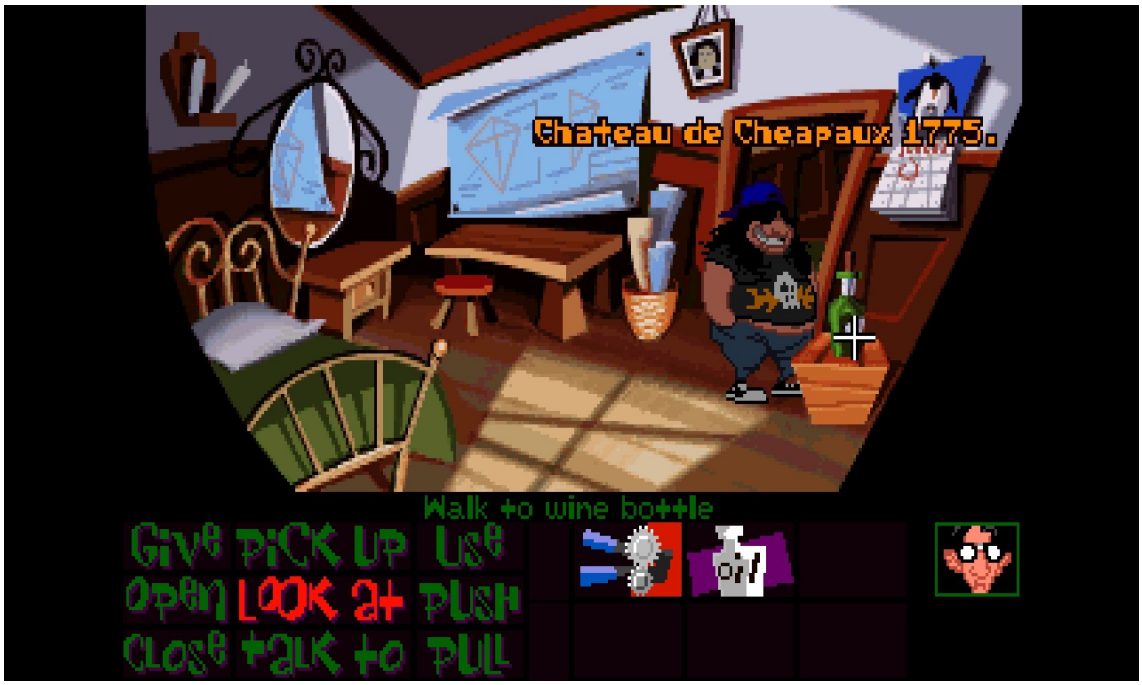

Figure 19. A bottle of wine is the closest to vinegar me and Hoagie can find.

In fact, me and Hoagie are supposed to offer the bottle of wine to Thomas Jefferson, who is collecting items for his time capsule. After we give him the bottle, Thomas says it was exactly the thing he needed, and plans to bury it before the end of the day (figure 20). Since Laverne is stuck in time four hundred years in the future, it's possible that she can find and open the time capsule. Inside the capsule, she hopefully finds the wine turned into vinegar, that she can then send back to Hoagie through her own Chron-O-John.

Figure 20. It seems Thomas Jefferson had an idea of what he needed this whole time.

Solving the first part of this puzzle requires only two steps, which could be described like this: first, find the wine, and second, put the wine into the time capsule. Describing the puzzle in this manner would imply that the solution is obvious to the player. This is not the case, however.

Rather than giving the player a quest to make vinegar by finding a bottle of wine and putting it inside the time capsule held by Thomas Jefferson, and to then acquire the bottle in the future as Laverne, the quest given to Hoagie is plainly: find vinegar. Providing the quest in this form encourages exploration, as it signs to the player that they have to figure out the solution to this challenge themselves, without further guidance.

Ultimately the player has to use insight thinking to deduce that in order to get vinegar, they need to put a bottle of wine into a time capsule, and then recover it in the future as a bottle of vinegar. This is not explicitly said anywhere in the game, so the only method to solve it is through an insight. Or, of course, through a method of trial-and-error, using every interactable object with everything else in the game, or looking for help from external sources, such as consulting a walkthrough of the game. I doubt, though, that any of those latter methods could provide the same kind of Eureka! moment as coming up with the solution through a moment of insight does.

This leap of insight thinking is available to the player from the moment Red Edison asks Hoagie to find vinegar for him, although it's not a very likely one to make right away.

At first, the leap of insight is enormous, but arguably still possible to make. If the player does not yet know about the bottle of wine or the time capsule, they still already possess some knowledge of how this virtual world works, for example that they can send inanimate objects through time. Thus, it is possible to come to a conclusion similar to this one: if there is no vinegar to be found lying around, but I found a bottle of wine and send it to the future, recovering it there could equal a bottle of vinegar.

A presumably more intended way of coming to the same conclusion would involve exploring the perimeter, finding the bottle of wine and the time capsule, and talking to the non-player characters to acquire more information about the virtual world through dialogue. This can, and should, reduce the size of the leap of insight gradually, without spoiling the puzzle by revealing the solution. This is exactly where *Day of the Tentacle* excels, as the game tends to execute this aspect of puzzle-solving rather consistently.

Exploring the environment, the player can indeed find several clues that help to solve this puzzle about finding vinegar. Talking to Thomas Jefferson lets me and Hoagie know that Thomas needs something for his time capsule, which gives both of us motivation to think of something he could use. Also, Hoagie's remark on how the time capsule looks like a martini shaker might make the player think about filling the time capsule with something drinkable. Then there is the mute mummy in the lobby, on the way from Red Edison's lab to the lounge where Thomas Jefferson resides. Talking to the mummy engages Hoagie into a monologue about the things he has on his mind, like where could he find some vinegar. After making Hoagie ask himself this question, another dialogue option becomes available that makes him say out loud "Maybe I could MAKE some vinegar" (figure 21).

Figure 21. Engaging in a monologue, Hoagie comes up with an answer to the situation.

While all these clues exist, it is ultimately left up to the player to take the 'unconscious leap of thinking' about how burying a bottle of wine underground for four hundred years turns wine into vinegar, and then applying this knowledge inside the virtual world of the game.

To summarize, the player needs to explore the virtual world to find the bottle of wine and the time capsule, engage in conversation with Thomas Jefferson and the mummy to get an idea of what he could do to make vinegar, and to take a look at the time capsule to get the hint that it looks like something that could hold liquid substances. Then they need to put all this information together to come to a conclusion that in order to make vinegar, they need to put the bottle of wine into the time capsule. This happens through making use of selective combination, one form of insight thinking, where "combining what might originally seem to be isolated pieces of information into a unified whole that may or may not resemble its parts" (Sternberg 1985, 80). Here, the bottle of wine and the time capsule represent the isolated pieces of information, and the resulting bottle of vinegar represents the unified whole that, in this case, resembles its parts.

Arguably, without the need of using insight thinking to reach the solution, this challenge would not be a puzzle at all (Fernández Vara 2009, 123-124). This would be the case if, instead of trusting the player to come up with the idea of turning wine into vinegar, this

was proposed as part of the fiction. Having Thomas Jefferson say to Hoagie something in the manner of "if you would put a bottle of wine in this time capsule it would definitely turn into vinegar in the next four hundred years it spends buried underground" would make sure that the player have all the information they need to solve the puzzle, but it would also prevent the 'intellectual kick' from happening by making the solution too obvious.

4.4.2. Part two: George Washington and the cherry tree

In this second part of my close reading, I present how implementing more than two separate objects of the virtual world as parts of the solution to a puzzle adds to the challenge, and how relying on knowledge coming from outside the fiction of the game as a part of the solution generates confusion, leading into a feeling of disconnect. I will also return to the discussion about the relationship between the player and the player character, and how they share the responsibility of making progression in the story and thus in the game. The close reading of this part of the puzzle also shows how a piece of information pointing the player almost directly to the solution of the puzzle can be made difficult to find, thus reducing the possibility of declining the player from feeling themselves clever when they ultimately reach the solution. In addition, solving this puzzle in the game rewards the player with a cut-scene, which strengthens the feeling that the player has made progression, and adds to the pleasure produced by solving the puzzle.

After successfully putting the wine bottle into the time capsule, it is left up to me to think how it can be retrieved in the future, where it has hopefully turned into vinegar. Hoagie does not make a single remark about how this helps him to get the vinegar, but seems simply content with the fact that he was able to help Thomas Jefferson in his quest for items to put into the time capsule. There is no way for Bernard and Hoagie to interact with the third player character, Laverne, who is the one stuck 200 years in the future and is the only one who could retrieve the vinegar. I have no access to her either at this point.

Although it feels somewhat odd that Hoagie does not have any idea on how to continue his quest for vinegar, it fits his character as a laid back and obliging member of the

gang, which makes it easier for me to accept. This shared responsibility between the player characters and the player is an interesting feature in *Day of the Tentacle*. Sometimes when I am in control of Hoagie, I feel that I am Hoagie, exploring the perimeter and talking to people, making funny remarks on their behavior along the way. Other times it feels like there is a distance between us, me being myself and Hoagie being someone else. This happens often when I feel like I know the solution to a puzzle, and use Hoagie just for the execution, or when I am unsure of what I am supposed to do, and end up going through the same spaces and dialogues over and over again in hope of picking up something that I might have missed.

This makes sense, if we think about the 'partly a game, partly a story' nature of adventure games. Content that advances the story of a game is usually shown to the player only once. Cut-scenes are one clear example of this type of content. There is also a lot of dialogue in adventure games that can only be seen and read once. When the player sees a part of the game more than once, it can feel like breaking the flow of the story, like reading a page or a chapter of a book again and again. How I see it, this is where an adventure game starts to feel more like a rule system than a story, growing a distance between the player and the player character, separating them from each other until it is time to proceed in the story once more.

At this point, I am aware of a critical fact needed to proceed: Laverne, who is in the future, got stuck on a tree when her Chron-O-John landed, and she cannot get down. Her situation is revealed to me several times in short cut-scenes before me and Hoagie can find the bottle of wine and put it into the time capsule. In those cut-scenes, Laverne asks for someone to get her down from the tree, suggesting that, although she likes trees in general, that particular tree has got to go (figure 22). This gives me motivation to search for a solution to her problem, so that me and Laverne can start our search for the vinegar in the future together.

Figure 22. Laverne's desperation to get down from the tree gives the player a goal which to work towards.

This leads me to the first point in this puzzle where insight thinking is needed, or advancing the story comes to a halt. I have to get rid of the tree that she helplessly hangs from, but I do not have control over her. I need to get an insight on how getting rid of this particular tree in the past equals that it will not exist in the future either, thus releasing Laverne from its grip. I should be able to come to this conclusion combining the call for help from Laverne with the premise of the main quest in the game: travel to yesterday to turn of the Sludge-O-Matic so that Purple Tentacle won't drink the contaminated water and become an evil mastermind. In other words, I have the power to change the future, together with Hoagie and Bernard, and we should use this power to solve problems.

This insight is another result of selective combination, where combining these two pieces of information into a novel idea about how to get Laverne down from the tree results as an Eureka! moment, that elicits intellectual pleasure in the player. Failing to make this connection, however, can make the player feel themselves lost, not knowing what to do next.

After I understand that in order to get access to Laverne, I have to make the tree disappear by doing something in the past, I start exploring the virtual world once again.

When me and Hoagie started our journey together at Hoagie's Chron-O-John in the yard near the inn, there was a kumquat tree next to the Chron-O-John (figure 23). Similarly, the tree that Laverne hangs from in the future looks like a kumquat tree, only bigger. I can also see the same tree in the present timeline with Bernard, only this time it is out of reach, on the other side of a stream (figure 24). This hints that it is up to me and Hoagie to solve this puzzle. There is no object lying around that could be used to take the tree down, however.

Figure 23. The same kumquat tree is present in every timeline.

Figure 24. Bernard can see it too, but it is out of his reach.

Solving this puzzle requires me and Hoagie to talk to George Washington, who is standing next to a window which shows a view of the yard with the kumquat tree. Navigating down the dialogue tree of this conversation between Hoagie and George Washington reveals to me and Hoagie that George likes to cut down cherry trees. When taunted by Hoagie to showcase his skills, George responds that he would do so if there was a cherry tree nearby. This dialogue between Hoagie and George makes it clear that George plays a part in the solution to this puzzle, because George can cut down trees.

On our scavenger hunt for useful items earlier, me and Hoagie found red paint. The solution to the puzzle on how to make the tree disappear so that Laverne can be freed is using the red paint on the kumquat tree in the past (figure 25), and then taunting George Washington again about his ability to cut down cherry trees. This time, he mistakenly takes the now painted red kumquat tree as a cherry tree, and cuts it down with a single swing of his hatchet (figure 26).

Figure 25. Disguising the kumquat tree by painting the fruit red is the solution.

Figure 26. Lucky for me and Hoagie, George Washington can't tell the difference between cherries and red kumquats.

In this puzzle involving George Washington, a kumquat tree, and red paint, there are several points where the solution of the puzzle — painting the kumquat tree red and taunting George to show his skills on chopping down cherry trees — can reveal itself to the player.

First, if the player is aware of the ‘cherry-tree anecdote’, one of many stories told about the real-life George Washington, they can make the connection between him and cutting trees down rather quickly. This anecdote is a story of how young George is said to have killed a cherry tree in his father’s garden with a little hatchet of his when he was six years old (Weems 1918, 22-23). The story may be familiar to some, but to those who do not possess this knowledge, this moment in the dialogue between Hoagie and George Washington, when Hoagie poses the question “is it true about you and the cherry tree?”, can produce some confusion. In any case, including this piece of dialogue into the game, it is made sure that the player becomes familiar with George Washington’s ability to cut down trees.

The second point where the solution to the puzzle can reveal itself to the player is after acknowledging that there is a single interactable kumquat tree next to Hoagie’s Chron-O-John, finding the red paint, and talking to George Washington. There is an additional, well-hidden, hint, too, if the player aims to leave no stone unturned in their search for the solution of this puzzle. It is possible to send the red paint to Bernard through the Chron-O-John. If Bernard is then made to look at the red paint, he points out that it is of ‘a vibrant cherry red pigment’ (figure 27). This is the final point where the player should get the insight of how they can disguise the kumquat tree to look like a cherry tree with the red paint, and make George Washington cut it down, thus freeing Laverne from its grasp in the future. Here, the insight is reached through selective comparison, which results in an idea of how a kumquat tree where the fruit are painted red bares a close enough resemblance to an actual cherry tree in order to work as a solution to the puzzle.

Figure 27. Bernard shares useful information with the player, if you happen to ask him.

This puzzle is more complex than the one with the bottle of wine and the time capsule, as it includes three (instead of two) seemingly separate objects that the player needs to connect: the kumquat tree, George Washington, and the red paint. However, this is not the only aspect that makes it complicated. Unless they are aware of the cherry-tree anecdote, nothing in the virtual world hints towards George Washington being able to cut down the tree, until Hoagie is made to ask him about it. The story about George and the cherry tree is not made clear in the dialogue between Hoagie and George either, so it does not really become a part of the story of the game at any point. This leaves the player with a feeling of disconnect even after solving the puzzle, because they cannot see how they should have had this information coming in to the puzzle. If George was holding the hatchet he ultimately uses to cut down the tree already when me and Hoagie encounter him for the first time, it would guide the player into thinking that he is a person who can cut down trees, thus connecting him to the puzzle. Also, the final hint that connects the paint to the tree — Bernard's quote on how the paint is of 'a vibrant cherry red pigment' — is easy to miss, because it requires the player to transfer an item that he found in the past (the red paint) to the present, without any motivation to do so. After solving the puzzle, however, the player is likely to think that they should have seen the connection between the tree and the red paint even before this hint was given,

as cherries tend to be the color of red. The link between George Washington and cutting down trees is a more difficult one to see.

This close reading of these two parts of the puzzle about finding vinegar for Dr. Fred has highlighted the many ways *Day of the Tentacle* guides the player towards the solution of a puzzle without giving away the solution. This is a challenging art, occasionally ending up in feelings of disconnect and confusion, when the player fails to make the intended connections between certain pieces of information. This close reading also shows how the level of challenge can be increased by making the puzzle more complicated, as it is done in the second part of this puzzle by increasing the number of seemingly separate objects needed to solve the puzzle from two to three. This all adds up to creating multiple ways of providing pleasure to the player of adventure games. I will next go through these ways in the results chapter of my close reading, and how they relate to these different aspects in *Day of the Tentacle*.

4.5. Results of the close reading

In this results chapter, I will go through what I am going to describe as at least three ways how solving adventure game puzzles provides pleasure to the player in *Day of the Tentacle*. I will explain how these three ways arise from my close reading, and how they relate to existing research.

In their definitions, Fernández Vara (2009, 124) and Karhulahti (2012) stress the need of using both lateral and insight thinking in order to come up with the solution to an adventure game puzzle. *Day of the Tentacle* exemplifies this by laying a path of logical steps for the player to follow, like the many hints building up to the solution in the two examples provided in my close reading, until they should be standing at the imaginary doorstep of the solution to the puzzle, waiting for a flash of insight to occur in order to reach it. Finding a solution to a puzzle in *Day of the Tentacle* also requires exploring the virtual world, engaging in conversation with the non-player-characters, and manipulating objects. These are the three main activities in the game that integrate the puzzle-solving process into the fiction. In the second example, a short cut-scene is provided after reaching the solution, where George Washington cuts down the kumquat tree, releasing Laverne from its grasp in the future. This connects solving puzzles to

both making progress in the game as well as proceeding in the story of the game, adding into the feeling of pleasure gained from solving the puzzle.

My close reading of *Day of the Tentacle* shows how adventure game puzzles have at least three ways of providing pleasure to the player: 1) puzzles are pleasurable works of art in themselves, 2) solving a puzzle through insight thinking, and 3) progression made in the story of the game by solving puzzles. Let us go through these three ways in which puzzles provide pleasure in detail, and see how they are accomplished in *Day of the Tentacle*.

Marcel Danesi (2002, 209) argues that "puzzles are pleasurable in themselves, as small works of art". This is evident in the puzzles of *Day of the Tentacle*, that are ingeniously interwoven as part of the fiction of its virtual world. Solving them does not feel like a separate aspect of gameplay, but a natural way for the player characters to traverse through the story of the game. The puzzles and the story thus form a coherent whole, when there is a connection between what the player does and how the story proceeds in response to their actions. Even though Danesi's description of puzzles as 'small works of art' is rather vague, leaving a lot of room for interpretation and further discussion about the concept 'work of art', it is an apt way of saying how the effort put into connecting the puzzles and the story in a digital game setting makes for a pleasurable gameplay experience when successful. When me and Hoagie set on our quest to find vinegar, there is a lot of pleasure to be derived from the comical setting of the game: exploring and mapping out different parts of the mansion, finding the bottle of wine on our way through it, talking to comically presented characters, such as Thomas Jefferson, who is sad because all he has found for his time capsule is a simple log, and putting together all these aspects, pleasurable in themselves, to work towards the solution that would help Hoagie fulfill his duties to Red Edison. The ingenious and clever way in which the puzzles are interwoven into the comical setting of the virtual world in *Day of the Tentacle* thus indeed makes them pleasurable in themselves, as small works of art.

Clara Fernández Vara (2009, 124) and Veli-Matti Karhulahti (2012) agree that the solution of the puzzle revealing itself through insight thinking is key to successful adventure game puzzles. Danesi (2002, 133) highlights this as the Eureka! moment, which grants the player intellectual pleasure from reaching a new level in their thinking,

thus being able to see the solution, previously shrouded in mystery. In *Day of the Tentacle*, the player is given a lot of chances to think outside the box, by using the three processes of insight thinking, in order to gain a sudden understanding of the ways of the virtual world that ultimately leads to the solution of the puzzle. Finding the red paint, and then giving it to Bernard to recognize as 'a vibrant cherry red pigment', is an example of how *Day of the Tentacle* nudges the player towards the solution without completely spoiling the Eureka! moment that happens when the player draws the connection between the kumquat tree that has to be cut down, George Washington who likes to cut down cherry trees, and the red paint that can be used to deceive George Washington to cut down the kumquat tree. By first using the thinking process of selective comparison, the player is able to gain an insight about how painting the fruit in a kumquat tree red makes the tree look like a cherry tree, and then using selective combination to put together these tree seemingly separate pieces of information to form a novel concept about getting rid of the kumquat tree, the player receives an intellectual kick, providing feelings of relief, triumph, and pleasure.

A relevant aspect of puzzles is that once they are solved, or the solution is revealed, the solution to the puzzle should appear obvious the the player. If it does not, it is not a very good puzzle, to say the least. (Tronstad 2005; Fernández Vara 2009, 125.) If solving a puzzle leaves the player with a feeling of disconnect, as they fail to see the connection between the solution and the puzzle, it is probable that the player did not find the solution to the puzzle through an insight either, and the inner workings of the puzzle are left unclear. In other words, after successfully putting the wine bottle inside the time capsule in the first example of the analysis, the player should feel like it was the obvious answer to the problem, and not left to ponder the reasoning behind why that was the thing they needed to do.

This property of puzzles shows how important it is to build the puzzle as a part of the storyworld of the game. Nonetheless, if the player chooses to rush through the game applying the 'brute-force' method of trial and error, or happens to stumble on the correct solution by accident, there is little to be done to avoid the feeling of disconnect that follows from accomplishing something the player was unaware of existed in the first place. This is a significant challenge for adventure games. One way to evade it is to reduce the possibilities of events that might cause inconsistency. This can be done in at

least two ways. One is to make the game more linear, so that there is less room for experimentation and thus stumbling onto a solution by accident. But by diminishing the amount of possibilities, it is difficult to keep the game as intellectually pleasurable. Another way is to prepare for every decision the player might make outside of the right order of things. This might mean hand-crafting consistent responses to every possible player action inside the game. Imagine, considering the aforementioned puzzle, that a player would accidentally find the bottle of wine and put it in the time capsule without receiving any of the bits of the story that are linked to the puzzle or having the idea of how it would work, what kind of response should the game provide in this case to avoid the What? effect, and the feeling of disconnect? Applying this method to all the puzzles in the game seems like a formidable task that would take a lot of resources to accomplish.

On top of these two sources of pleasure that are built within solving puzzles in adventure games, Fernández-Vara (2015, 238) suggests that pleasure is also derived from the events that follow, as a result of successful puzzle-solving. She calls them ‘funny short scenes’ that work as a reward for the player after finding a solution to the puzzle. While these short scenes that follow the solving of a puzzle are not part of the puzzle in the sense that the information they contain cannot be used in the solution, as they appear only after already solving the puzzle, they certainly have merit in making the puzzle more pleasurable as a whole. As I discussed in the close reading, the fact that Hoagie does not react at all after giving the bottle of wine to Thomas Jefferson to put into his time capsule, nor does the game give the player any sort of reward, or a clue on what pursue next, creates a moment of confusion in the player. On the other hand, when George Washington sees the kumquat tree painted in red and cuts it down, a short scene shows Laverne falling down to the ground as the tree she was hanging from suddenly disappears in the future, followed by the game indicating, through a blinking new icon appearing in the user interface, that she is a playable character from this point onwards, is a very pleasurable moment in the game. Even though the player would feel somewhat disconnected and confused due to the fact that they did not possess the knowledge about George Washington’s ability to cut down trees coming into the puzzle, the pleasure gained by following this chain of events and realizing the progression made in the game

has the power to lessen this feeling of disconnect by making the progression made by the player visible through a funny short scene.

This close reading shows how puzzles are constructed as part of the fiction in *Day of the Tentacle*. It also shows how easy it is to dismiss the subtle path of the right order of things, and how that results in the breaking of the illusory world, causing feelings of disconnect and confusion in the player.

5. DISCUSSION

After reviewing the existing research literature about adventure games, puzzles, and the intellectual pleasure that solving puzzles provides, I set a research goal for my thesis work. The aim of my research ended up being twofold by nature, where, first, I wanted to find out if the ways solving puzzles provide pleasure to the player, according to existing research, are present in *Day of the Tentacle*, and second, what kind of aspects of the puzzles in *Day of the Tentacle* might work towards making the player feel confused, disconnecting them from the illusory world of the game. My presumption was that I would find evidence about both of these aspects in my close reading of *Day of the Tentacle*, and in addition learn more about the nature of intellectual pleasure as a result of this close examination.

In the results chapter of my close reading, I argue that based on the existing research, there are at least three ways in which adventure games provide pleasure to the player: 1) puzzles are pleasurable works of art in themselves, 2) solving a puzzle through insight thinking, and 3) progression made in the story of the game by solving puzzles, and that all of them are also present in *Day of the Tentacle*. In addition, I was in part surprised about how fragile constructs adventure game puzzles are, although I assumed it would be easy to break the illusory world the game tries to hold together by dismissing the hints provided and the story-wise correct order of things, and doing something nonsensical, like in the example of inserting a hamster in a freezer, without any motivation to do so, just because the rules of the game make it possible.

Based on my own experiences as a player and as an observer, nonsensical actions that break the illusory world of the game, at least in adventure games, tend to be the end result of situations where the player does not know what to do next, or chooses to ignore the story of the game and applies a trial-and-error method instead. This method of trial-and-error, or brute-forcing, i.e. simply trying to combine every interactable with every other interactable in order to make progress in the game, can be seen as a result of frustration or boredom in a case when the player does not “see with the mind’s eye the inner nature of some specific thing” (Danesi 2002, 28), thus producing a halt in their progress. Applying this method to adventure games like *Day of the Tentacle* is easy,

since it is impossible to lose progress in them no matter what the player chooses to do, as there are no fail states built into these game. The player character cannot face death either, which differs from many other digital games. Bob Rehak (2003) points out that it is usually "through their ability to live, die, and live again", that the video game avatar, or the player character, differs from the player. It is important for the player to feel like they are making progress, even if done little by little, so that when they fail, they still possess the feeling that they were headed in the right direction. This is linked to the way humans learn, according to James Paul Gee (2013, 28), who argues that

> [l]earning works best when new challenges are pleasantly frustrating in the sense of being felt by learners to be at the outer edge of, but within, their "regime of competence." That is, these challenges feel hard, but doable. Furthermore, learners feel - and get evidence - that their effort is paying off in the sense that they can see, even when they fail, how and if they are making progress.

This cycle of making progress, failing, and making more progress is a lacking concept in adventure games with no fail state such as *Day of the Tentacle*, which leads to the reason why it is so crucial to construct the puzzles in them in a way that encourages the player to take part in the three main activities in these games: exploration, conversation, and object manipulation. Through engaging in these activities, the player should learn enough about the workings of the virtual world to be able to use logical and insight thinking to reach the solution of the current puzzle, thus making progress in the game. In other words, playing an adventure game as it is intended to be played should make its puzzles feel 'pleasantly frustrating', as Gee puts it. Comparing the ways in which solving the puzzles of *Day of the Tentacle* provides pleasure to the ways in which the puzzles of an adventure game where losing progress is possible are pleasurable would make an interesting topic for future research.

I propose that the three ways in which adventure game puzzles provide pleasure to the player, identified in this thesis work by connecting the existing research to the findings in my close reading of *Day of the Tentacle*, can be used as a basis for a criteria to evaluate adventure game puzzles in general, or as guidelines to aid in a game design process. This is not to say that all adventure game puzzles should be constructed using a similar criteria, as I believe that every player has their own opinion about the nature of puzzles they enjoy, which is one reason why adventure games can be very different

from each other, and yet be successful at the same time. According to my experience, it is the consistency of the logic at work in the virtual world of an adventure game that is crucial for the game to be enjoyable. Players can learn even the most nonsensical rules of a game and act accordingly, as long as the logic is consistent and explained to the player in some way. In addition, even though *Day of the Tentacle* relies highly on the comical aspects to make it an entertaining experience, this is not by any means the standard of all adventure games. I feel that the witty humor present throughout *Day of the Tentacle* has its merits on how the player accepts the sometimes mind-bending logic of, and far-fetched solutions to, many of its puzzles, which in part, by keeping the player entertained, aids in preventing anxiety, frustration, and boredom on the player's behalf. How this criteria applies to adventure games with a more serious tone remains a topic for research to come.

Through the setting of my research goal I ended up showing how puzzles are, and should be, at the center of adventure games like *Day of the Tentacle*. When interwoven into the fiction of the virtual world of the game, puzzles keep the player invested in the story, and thus also in the game. The player wants to know what happens next in the story, and they trust the game to provide them with enough information to guide them towards the solution of the puzzle at hand. This also means that if the player ends up being possessed by a feeling that they will never find out the solution to the puzzle at hand, nor does it feel like they can get the virtual world to reveal enough information for them to get any closer to the solution, it can result in the player losing interest in the game. This is more probable when there is little or no connection between the puzzle and the story. In my close reading, I showed how the intersection of simple, yet elegant puzzles that also fit into the fiction of the game is present in *Day of the Tentacle*, and how this property makes solving its puzzles so pleasurable.

Choosing pleasure as the main concept for this thesis work provided its own challenges. I focused mostly on the intellectual pleasure, or the aesthetics of mind, as defined by Marcel Danesi (2002, 227), who links it to feelings of relief and triumph, and suggests that it is the result of a flash of insight, an Eureka! moment of reaching a new level of thinking, resulting in a novel idea that proves to be the solution to the puzzle. I chose to extend this concept by including the pleasures gained by watching an animated sequence revealing a new part of the story after a successful solving of a puzzle in an

adventure game, as well as the pleasures of appreciating the adventure game puzzle as a small work of art in itself. It could be argued that, in fact, all these pleasures are different and separate from each other, and providing a framework for situating and defining the different types of pleasures derived from playing adventure games would also make an interesting topic for future research.

The main accomplishments of this study are, first, drawing connections between a multitude of existing research, some of them which have not, to my knowledge, been connected to each other before in the field of game studies, and second, putting this knowledge, gained by combining existing information, to use via a close reading, recognizing where my findings have grounds in this knowledge base. Additionally, I feel that my close reading of *Day of the Tentacle* added to the aspiring tradition of close reading digital games, providing a viewpoint on how to use this method for a game analysis inside the scope and setting of a master's thesis.

At the other end, the main problems with this study are the vagueness of the concept of pleasure, as it still leaves a lot of room for discussion about its nature, and the possible subjectivity of my analysis, as I might have taken some aspects about the subject work for granted due to my previous experience as well as the experience attained during my close reading. Prior to starting the work on this master's thesis, I was unaware of this close reading method I ended up using for the analysis, which makes it probable that my understanding of the method and its use is still, at least to some extent, preliminary. This being said, I still feel that, inside the scope of a master's thesis work, getting first-hand information about the subject work in order to form an analysis was of the most importance. Drawing connections between this information and second-hand information would make a highly valuable follow-up research about the topic.

6. CONCLUSION

In this thesis I have shown how close reading works as a method for game analysis. Trying to map out all the information in the game that is linked to solving a certain puzzle requires playing through the same part of the game several times, in order to exhaust the possibility space of that particular situation. Looking at each piece of information separately and also in relation to other information that is connected to solving the puzzle makes it possible to make educated assumptions about the intent of the designer, lying beneath the puzzle construct.

While *Day of the Tentacle* provides the player with a lot of hints that help towards solving the puzzle, it is often ultimately left up to the player to reach the flash of insight that leads to the solution revealing itself. This is the part of the puzzle that either provides the intellectual pleasure, the Eureka! moment, or leaves the player feeling confused and disconnected from the illusory world of the game, in the case they fail to see the connection between the solution and the puzzle.

The fact that adventure game puzzles are interwoven into the fiction of the game help in keeping the player's hopes up that they will come up with the solution eventually, if they are persistent and observant enough while engaging in the three main activities of adventure games: exploration, conversation, and object manipulation. In the case of *Day of the Tentacle*, the humorous vibe that resonates through the game in every aspect also encourages the player to try out even the comical and far-fetched solutions to the puzzles, which keeps the tone of the game playing experience entertaining, avoiding the fall into boredom, anxiety, and frustration.

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